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Check List of the Amphibians and Reptiles of Canada and Alaska

Contribution No. 53

LIFE SCIENCES DIVISION

ROYAL ONTARIO MUSEUM

TORONTO

E. B. S. LOGIER

& G. C. TONER

Check List of the Amphibians and Reptiles of Canada and Alaska

A revision of Contribution No. 41

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Check List of the
Amphibians and Reptiles
of Canada and Alaska

Introduction to Second Edition

Since the publication in 1955 of our Check-list of the Amphibians and Reptiles of Canada and Alaska, Royal Ontario Museum of Zoology Contribution No. 41, a number of errors and omissions have come to light. Many of these were kindly called to our attention by recipients of the check-list; others soon became apparent to the authors in the course of using it.

Unfortunate circumstances arising in 1955 prevented the careful final rechecking so necessary in such a work. This was particularly regrettable in view of the fact that during the preparation of the manuscript repeated and often long-protracted interruptions predisposed to errors, when, after periods of often many weeks out of contact with the work, attempts were made to pick up the loose ends and continue.

That paper is now out of print, for which the authors are thankful, since it affords them the opportunity to correct these errors and omissions in a revised edition. The introduction to the first edition stands as originally written, except for some minor corrections and revisions which have been made in the text.

We wish particularly to call attention to the explanation of our system of mapping, as set out in the introduction to the first edition (p. 6 of the present paper). It appears from some letters we have received, and some references to the check-list that have appeared in print, that some users of the list omitted to read this explanation, and therefore wondered why various published records were not cited, or assumed that records were lacking because not listed or mapped. Had we included all records of which we had knowledge, the list would have run into many hundreds of pages, without conveying any more information pertinent to its purpose. However, in the present edition, we are including additional records, some of which were known to us in 1955, and some which have been obtained since. Nevertheless, in most cases we are not citing all locality records known to us, but are still following the procedure adopted in the 1955 edition.

The present edition will be freer of errors and omissions than was the former, but we do not expect it to be absolutely free of them. Users of the check-list discovering errors or omissions, or faults of other kinds, will confer a favour on the authors by communicating with them.

In the preparation of the second edition of this check-list the authors received valuable help from professional colleagues, friends and correspondents. Dr. F. A. Urquhart, *Head of the Life Sciences Division, Royal Ontario Museum*, heartily encouraged our efforts and made publication possible. Dr. J. Sherman Bleakney, *Acadia University*, and Dr. G. Clifford Carl, *Director, British Columbia Provincial Museum*, read the manuscript, contributed additional records, and corrected a number of errors. Mr. Francis Cook, *Acadia University*, kindly permitted the use of some of his unpublished records. Dr. W. H. Beck, *University of Saskatchewan Museum*, Dr. R. W. Nero, *Assistant Director, Saskatchewan Museum of Natural History*, and Mr. R. W. Sutton, *Director, The Manitoba Museum*, contributed many records for the Prairie Provinces. Mr. Roger Conant, *Curator of Reptiles, Philadelphia Zoological Garden*, was generous and painstaking in consultation by correspondence.

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To all of the above named kind people we extend our grateful thanks.

E. B. S. LOGIER
G. C. TONER

*Introduction to First Edition**

The need for a check-list of the amphibians and reptiles occurring north of the Canada-United States border has been apparent for a long time. In the United States the ranges of these animals have in most cases been well worked out and defined. In Canada there have been few students of herpetology and these, for the most part, have been able to devote only a small portion of their time to the subject. However, a large amount of distributional data has accumulated, much from scattered published sources, but most from the collections and records in the Royal Ontario Museum.

Most of our amphibian and reptilian fauna is in the nature of "overflow" or northward extension of forms occurring in the United States, but the northern extremities of their ranges are often ill-defined in United States publications and cited merely as "Canada" or "southern Canada," while some forms ranging into Canada are not so listed.

The fact that the amphibians and reptiles of Canada are not generally considered to be of great economic, or (aside from the bullfrog) of any commercial, importance has, no doubt, much bearing on the case. The ability of a people to appraise scientific values apart from economic or commercial applications is one index of its cultural level, so the situation that exists with regard to herpetology in Canada does not flatter us. For most of our knowledge of the lives and habits of our own fauna we are indebted to our neighbours to the south, so that if such knowledge is incomplete or inaccurate in so far as it pertains to conditions in Canada, we have only ourselves to reproach.

The present work was started after the outbreak of World War II, and at a time when obstacles might be expected. They did arise, and not all of a nature foreseen, thus publication was delayed. This, however, was a blessing in disguise, since considerably more data have become available in the time interval, and the authors have been able to give more mature consideration to both their selection and the form of presentation. In spite of the obvious gaps in such distributional data, it seems desirable to put on record the information available now, rather than wait indefinitely for the perfection "at the end of the rainbow." It will be many years before the necessary faunal work will

*Some corrections have been made in the text.

have been done in much of the vast area covered by this check-list, and will certainly not be within the lifetime of the present authors. The range limits, especially the northern ones, indicated in this list are in many cases provisional, but are as close to the truth as we can come at present.

The problem of assessing records not supported by specimens collected (or at least seen by a competent authority) is always a knotty one for zoologists. Manifestly, it is not always possible to collect a specimen for every noted occurrence, nor would it always be desirable even if possible, and the testimony of travellers who are not zoologists must occasionally be accepted. The line here between true and false may at times be uncertain and require careful judgment to trace. In our experience with the classes of animals under consideration, in spite of the fact that our fauna is small, we have found that identifications by untrained persons are often inaccurate. Since such identifications, without the specimens, cannot be rechecked, some may always bear a question mark. Their value then is in the nature of an "alert" to watch for corroborative information. We have, accordingly, screened all reports coming to us in terms of the known competence of the observer, the probability or improbability of such a record at the particular locality, and the possibility of confusion with an allied or similar form that might be expected, or was known, to occur there. Those which in our opinion are invested with doubt have been discarded, or if included, qualified by a footnote.

Certain alleged races which are more or less in taxonomic confusion have not been referred to subspecies, but simply to the parent species. For example, in the leopard frogs, satisfactory characters to distinguish between *Rana pipiens pipiens* Schreber and *Rana pipiens brachycephala* Cope are not known to the authors, the characters that have been published upon as diagnostic breaking down when applied to Canadian material. A similar situation pertains to the wood frogs *Rana sylvatica sylvatica* LeConte and *Rana sylvatica cantabrigensis* Baird. Even if arbitrary selections of such variable characters as leg length were used, it would still be impossible to assign geographical ranges to the alleged forms on the basis of such characters.*

In the reptiles, certain of the western garter snakes appear to be in a state of taxonomic fluidity. Perusal of the literature dealing with this group that has appeared within the last fifteen to twenty years reveals divergence of opinion among competent students as to both characters and ranges that should be assigned to various forms, and as to what forms (and even species) should be considered valid. The authors confess themselves incompetent to judge between such differences of opinion, and so can only refer the forms in question to the parent species. In view of the present state of the literature and the very inadequate field work that has been done in Western Canada, it would, we believe, be futile and misleading to attempt to assign racial names to any records of the species *Thamnophis sirtalis* from points west of the 120th meridian, which marks the Alberta-British Columbia border northward to 60° Latitude.

*Martof and Humphries, 1959, recognize five geographic types of this frog, but do not favour the use of subspecific names.

Some of the younger men in this field may, we hope, before their work is finished, leave some of these confused groups in a clearer and more orderly condition. In this connection it must be remembered that any species of living animal is not a static thing, but an expression of an active evolutionary force, i.e., something changing, perhaps in process of becoming something else, and not a once-and-for-all completed product (unless or until it becomes extinct). For this reason, a definition of a species is a convenience of zoologists, relative to a point in time, and must always be imperfect. If this is true of species it is much more immediately true of subspecies or races, therefore, since a perfect definition cannot be given of a thing in process of change, it seems futile to expect the subspecies problem ever to be finally settled to the agreement of all students of these, or any other, variable animals.

The question arises, indeed, as to whether much of the race-naming so in vogue today is justified by a cool appraisal of the facts. It might, in fact, be suggested that the perennial multiplication of named races erected upon trifling and inconstant characters is a major incubus of zoological literature of the current century, superfatting it with a senseless profusion of synonyms to frustrate and perplex serious minded zoologists, and creating unnecessary, time-consuming labour for bibliographers and librarians. We might go even further and suggest that if some enterprising young systematists in a number of these hair-split groups would devote their lives' effort to unsplitting them again (except where sound biological study showed that they should be split) they would confer a benefit of the first magnitude on zoologists and librarians of the future. True, the synonyms already in the literature would remain as a dragging curse for all time, but their riotous, epidemic increase could be sharply tapered off by common sense systematic sanitation.

We are not here minimizing the importance of variations and races, nor of their role in speciation and evolution. Any variations or mutations may prove in time to be of evolutionary significance, or may not, and this applies equally to those so slight, or of such a nature, as to be nearly or completely useless as taxonomic characters. To note differences and resemblances where they may be observed by any means whatever is a legitimate function of the study of zoology, but to attach trinomials or quadrinomials to any vagary of variation that appears in a population is something else again.

It is, we believe, generally conceded by zoologists that two races of the same species will not be found occupying the same ecological niche in the same geographical area. To determine the ecological niche may not be a simple matter, but the application of race names might often better await such information. If the supposed races widely overlap in geographical territory it would seem that this information is fundamental. It will never be obtained by counting scales or spots, applying some preferred mathematical formula and plotting the result in a graph to show the mean, the mode, the standard deviation and probable error; yet much of the current race-splitting seems to derive from no deeper study. We freely concede that the latter form of study is useful and necessary for a knowledge of certain quantitative elements in populations, but the core of the problem, viz., the nature of the biological factors that underlie the variations, and the meaning of the variations in terms of those

factors and in the lives of the animals, remains untouched. In the same train of thought, we should remark with considerable emphasis that the application of racial names to geographic gradients of variation is a highly dubious procedure, but the variations and any factors relating to them are worthy of careful study.

We are, according to currently accepted classification, using trinomials (if in use) in cases where the subspecific status is not in question. We have followed the arrangement and nomenclature used in the sixth edition of the check list of North American amphibians and reptiles (Schmidt, 1953), except in the case of *Bufo americanus*, but have omitted the usual references to the original descriptions, type localities, and synonymy, which are already covered in that and other works. The purpose of the present list is purely that of indicating ranges in Canada and Alaska, so that only the ranges, or portions of ranges, north of the Canada-United States border are dealt with here. The portions of ranges that extend south of that line are treated and mapped in various United States publications.

For each form listed there is a map (except in cases of single-locality records) indicating its range within the territory under consideration. Each locality named in the text is marked by a spot on the map pertaining to the form in question; localities close together may be included under a single spot. An open circle, unless otherwise stated, indicates reported occurrence in an area, but without a precise locality. We have not followed the usual procedure of shading the areas of the ranges: this is because sufficient collecting has not been done and it is often impossible to say whether many of the spots on the maps indicate the range limits of the animals or the collecting stations. Also, in view of the long distances that separate many of these collecting stations, any decision as to precisely how they should be joined by an enclosing line (the edge of the shading) would be arbitrary and speculative.

When the records of a species are few or sporadic, every locality of record is named and mapped. When a species is common within a circumscribed area, or its range extensive, usually only the peripheral localities that mark the apparent limits of its range are named and mapped, and not always all of these, but only those so located as to appear significant in conveying information about the probable extent and contour of its range. The citation of all records from the areas concerned was once contemplated, a procedure for which there is precedent, but after due consideration, and regarding the opinions of some other zoologists, this idea was abandoned.

An authority for each locality record is given. If a record is from the literature, the reference is given by author, date, and page following the place name, and may be found in full in the bibliography at the end of the book. If there is known to the authors a specimen in a museum, the museum is cited by initials following the place name. If a specimen was seen by one or both authors, or reported by personal communication, etc., such facts are indicated by initials and names following the place name (see list of abbreviations below). Usually, however, a single authority reference is cited for each record, and a museum reference if known, whether it is based upon one or many specimens, and no attempt was made to cite all literature references

supporting any locality record, or all museums where such specimens may be housed. Once a record is positively established, further citations of authority in support of it would be beside the purpose of this work, which is not an inventory of records, but an outline of distribution.

List of abbreviations for museums, collections, and authorities (other than literature references) for locality records.

APM	Algonquin Park Museum, Algonquin Park, Ontario.
BMNH	British Museum (Natural History), London, England.
CM	Carnegie Museum, Pittsburgh, Pennsylvania.
CU	Cornell University, Ithaca, New York.
MM	Manitoba Museum, Winnipeg, Manitoba.
MCZ	Museum of Comparative Zoology, Cambridge, Massachusetts.
NMC	National Museum of Canada, Ottawa, Ontario.
NSMS	Nova Scotia Museum of Science, Halifax, Nova Scotia.
OSCMNH	Oregon State College Museum of Natural History, Corvallis, Oregon.
PMBC	Provincial Museum of British Columbia, Victoria, British Columbia.
QPM	Quetico Park Museum, Quetico Park, Ontario.
ROM	Royal Ontario Museum, Toronto, Ontario.
UA	University of Alberta, Edmonton, Alberta.
UMMZ	University of Michigan Museum of Zoology, Ann Arbor, Michigan.
SMNH	Saskatchewan Museum of Natural History, Regina.
USM	University of Saskatchewan Museum, Saskatoon.
USNM	United States National Museum, Washington, District of Columbia.
PC	Personal communication (name of communicator following in parentheses).
SC	Specimen (or specimens) collected by member of ROM staff, but not now in its collection.
SR	Specimen (or specimens) received by ROM, but not now in its collection.
SS	Specimen (or specimens) seen by one or both of the authors.

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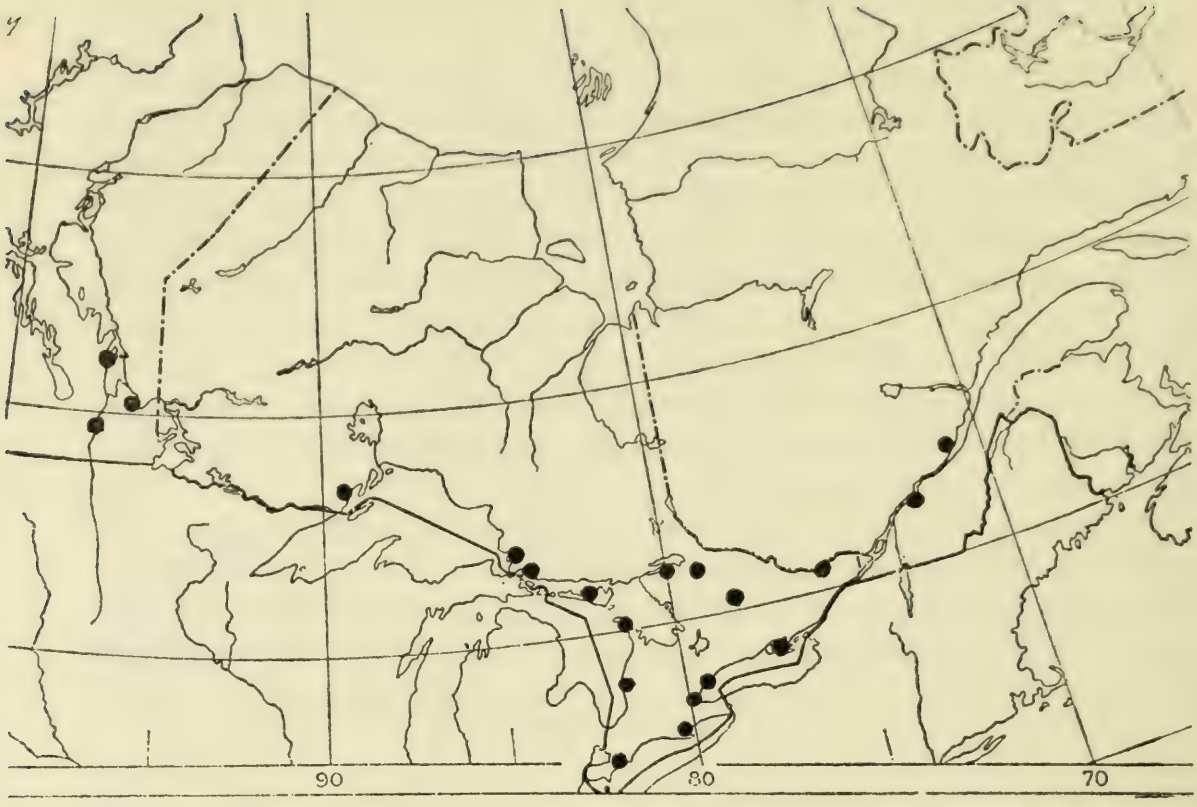
Without the kind help acknowledged above and so generously given, our task would have been more difficult, less pleasant, and less successful. Before the list of acknowledgments is ended, one, of the fact that most of the spade work of searching the literature and preparing the card file of published records was done by the junior author, is due and gratefully made.

E. B. S. LOGIER,

April 18, 1955.



Map 1. *Necturus maculosus maculosus*

Map 2. *Dicamptodon ensatus*

Map 3. *Ambystoma gracile gracile*

Class Amphibia

Order Caudata

FAMILY PROTEIDAE

Necturus maculosus maculosus Rafinesque
MUDPUPPY

Range in Canada: From southeastern Manitoba eastward to about Quebec City; tributaries of the Upper and Lower Great Lakes and St. Lawrence River. Map 1.

Canadian locality records: MANITOBA. Lake Winnipeg at about Latitude 51° (Hecht, 1955, p. 251); (USNM). Seven Sisters Falls on Winnipeg River (ROM). Winnipeg (ROM). ONTARIO. *Algoma Dist.*, Cranberry Creek, Harmony River (ROM), Sault Ste. Marie (Agassiz, 1850, p. 382). *Bruce Co.* Crane River and Lucknow (ROM). *Carleton Co.* Ottawa (ROM). *Kent Co.*, Merlin (ROM). *Manitoulin Dist.*, Sheguindah (ROM). *Nipissing Dist.*, Lake of Two Rivers in Algonquin Park, Talon Lake (ROM). *Norfolk Co.*, Long Point (ROM). *Parry Sound Dist.*, Frank's Bay (ROM). *Prince Edward Co.*, Hallowell (ROM). *Thunder Bay Dist.*, Kaministiquia River in Neebing Twp. (ROM). *Wentworth Co.*, Hamilton (ROM). *York Co.* Toronto (ROM). QUEBEC. *Champlain Co.*, Cap de la Madeleine (Provancher, 1875, p. 73). *Quebec Co.*, Quebec (Trapido and Clausen, 1938, p. 118).

FAMILY AMBYSTOMIDAE

Dicamptodon ensatus Eschscholtz
PACIFIC GIANT SALAMANDER

Range in Canada: Extreme southwestern corner of British Columbia. Map 2.

Canadian locality records: BRITISH COLUMBIA. *New Westminster Dist.*, Chilliwack Lake (Cope, 1889, p. 112). Cultus Lake (ROM). Sumas Lake (Boulenger, 1882, p. 49).

Ambystoma gracile gracile Baird
BROWN SALAMANDER

Range in Canada: Vancouver Island and adjacent mainland of British Columbia. Map 3.

Canadian locality records: BRITISH COLUMBIA. MAINLAND. *New Westminster Dist.*, Alta Lake (Carl and Cowan, 1945, p. 43). Chilliwack

Lake, Holyburn Ridge, Lihumitson Mt. (ROM). Nita Lake (Dunn, 1944, p. 130); (PMBC). Vancouver (Dunn, 1944, p. 130). *Yale Dist.*, Hope (Carl and Cowan, 1945, p. 43). VANCOUVER ISLAND. *Cameron Dist.*, Mt. Arrowsmith (PMBC). *Comox Dist.*, Forbidden Plateau (Brown and Slater, 1939, p. 24). *Nanaimo Dist.*, Nanaimo (Cowan, 1937, p. K17). *Renfrew Dist.*, Jordan River (PMBC). *Rupert Dist.*, Quatsino (PMBC). *Victoria Dist.*, Victoria (Hardy, 1926, p. C22); (PMBC).

Ambystoma gracile decorticatum Cope
BRITISH COLUMBIA SALAMANDER

Range in Canada and Alaska: Coastal British Columbia from Range 2 northward to southern Alaska. Map 4.

Canadian and Alaskan locality records: ALASKA. Mary Island (Dunn, 1944, p. 130). BRITISH COLUMBIA. *Coast Dist., Range 2*, Goose Island (Carl, 1949, p. 139). Hunter Island (Dunn, 1944, p. 130). *Coast Dist., Range 3*, Bella Coola (Patch, 1922, p. 76); (PMBC). Hagensborg (Patch, 1922, p. 76). *Coast Dist., Ranges 3 and 4*, Princess Royal Island (PMBC). *Coast Dist., Range 5*, Port Simpson (Cope, 1889, p. 108). Prince Rupert (Hardy, 1928, p. E17). *Queen Charlotte Dist.*, Hecate Strait (Carl and Cowan, 1945, p. 44).

Ambystoma jeffersonianum Green JEFFERSON SALAMANDER
Ambystoma laterale Hallowell BLUE-SPOTTED SALAMANDER

These two species have been confused for so long that it is impossible at present to separate the locality records pertaining to each. Their ranges widely overlap.

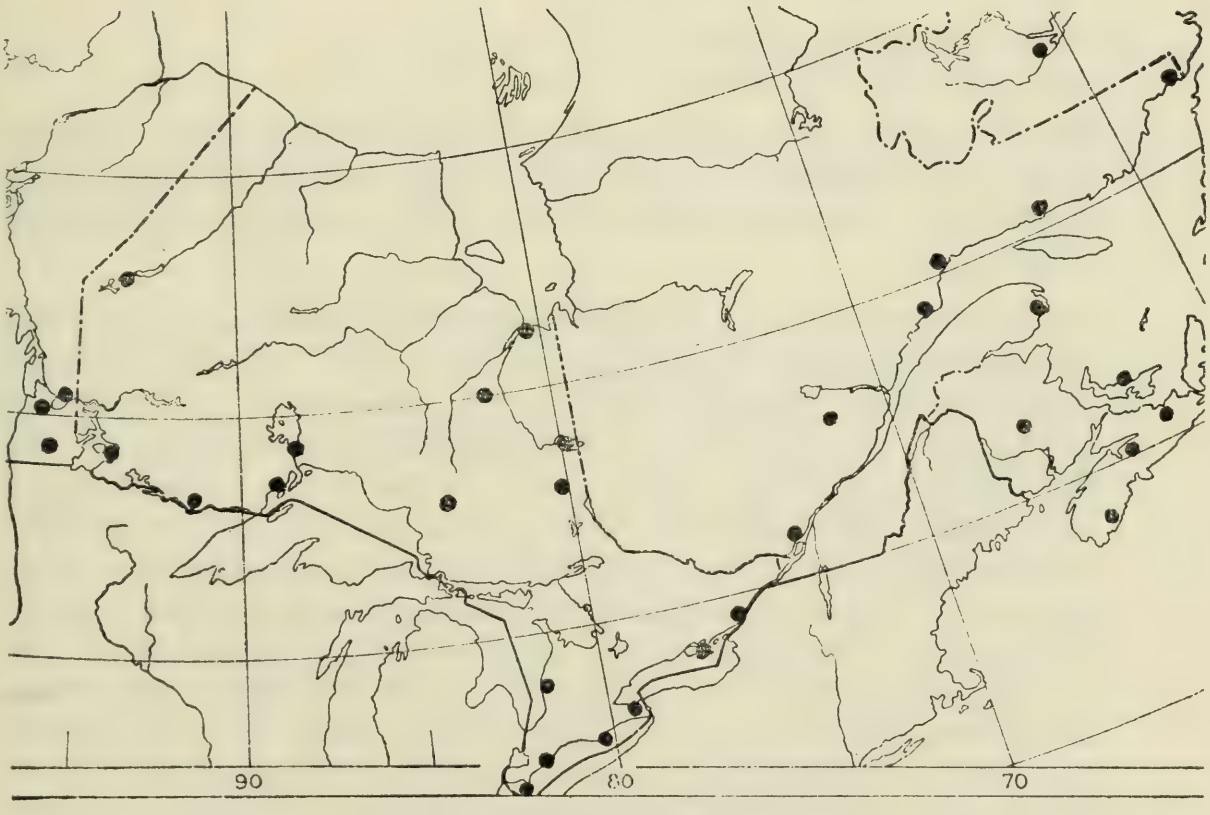
A. laterale, described in 1858, was treated by Cope (1889, p. 92) as a subspecies of *A. jeffersonianum*. It passed into the synonomy of the latter, where it remained until the publication of Minton's paper (1954, pp. 173–179).

The two are treated and mapped together below.

Range in Canada: From eastern Manitoba to Nova Scotia, Prince Edward Island, and extreme eastern Quebec; northward in Ontario to 53° Latitude in the west, to James Bay in the east; to Goose Bay in Labrador. Map 5.

Canadian locality records: LABRADOR. Goose Bay (Bleakney, 1954, p. 168); (NMC). MANITOBA. Beausejour (Seton, 1918, p. 80). Pointe du Bois on Winnipeg River, Sandilands, Whiteshell (PC: R. W. Sutton). NEW BRUNSWICK. *Sunbury Co.*, Assikeag (Dunn, 1918, p. 458). Oromocto Island (Cox, 1898, p. 64). NOVA SCOTIA. *Antigonish Co., Hants Co., Queens Co.* (Bleakney, 1952, p. 125); (NSMS). ONTARIO. *Bruce Co.*, Lucknow (Yarrow, 1882, p. 150). *Carleton Co.*, Ottawa (Groh, 1924, p. 159). *Cochrane Dist.*, Lake Abitibi, Moose River (Cope, 1889, p. 94). Smoky Falls (ROM). *Essex Co.*, Pelee Island (ROM). *Kenora Dist.*, Whitefish Bay (ROM). *Kent Co.*, Rondeau Park (ROM). *Leeds Co.*, Brockville (Toner and de St. Remy, 1941, p. 10). *Lincoln Co.*, St. Catharines (ROM). *Norfolk*

Map 4. *Ambystoma gracile decorticatum*



Map 5. *Ambystoma jeffersonianum*
Ambystoma laterale

Co., Long Point (Adams and Clark, 1958, p. 8). Turkey Point (ROM). *Patricia Dist.*, Favourable Lake (ROM). *Prince Edward Co.*, Hallowell (ROM). *Rainy River Dist.*, Emo (ROM). Quetico Park (Lindeborg, 1950, p. 86). *Thunder Bay Dist.*, Orient Bay, Port Arthur, Slate Island (ROM). *York Co.*, Toronto (ROM). PRINCE EDWARD ISLAND. *Queens Co.*, Brackley Beach (Hurst, 1946, p. 121). QUEBEC. *Gaspe Co.*, Grand River (Cox, 1899b, p. 194). *Jacques Cartier Co.*, Montreal (ROM). *Laurentides National Park* (Vladykov, 1941, p. 83). *Saguenay Co.* Betchewan (CU). Belles Armours (Packard, 1866, p. 272). Godbout (Harper, 1956, p. 100); (USNM). Seven Islands (Bleakney, 1954, p. 168); (NMC).

Ambystoma macrodactylum Baird
LONG-TOED SALAMANDER

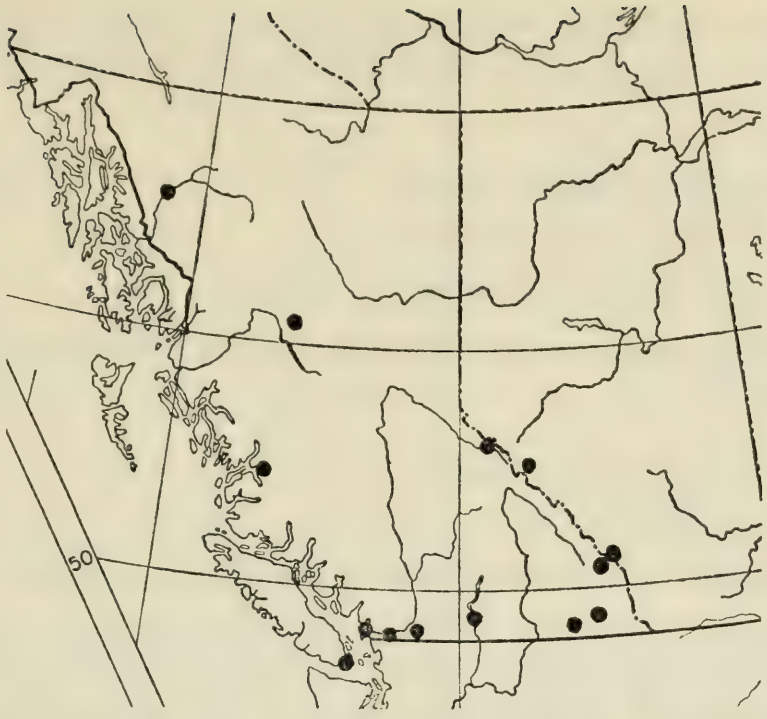
Range in Canada: British Columbia northward at least to Stikine River; from Vancouver Island eastward to Jasper and Banff in Alberta. Map 6.

Canadian locality records: ALBERTA. Banff (ROM). Jasper (PC: A. Loveridge); (MCZ). BRITISH COLUMBIA. MAINLAND. *Cariboo Dist.*, Moose River (Hollister, 1912, pp. 45–46). *Cassiar Dist.*, Stikine River near Telegraph Creek (Slevin, 1928, p. 30). Lake Tetana (Stanwell-Fletcher, 1940, p. 137). *Coast Dist., Range 3*, Bella Coola (Patch, 1922, p. 75). *Kootenay Dist.*, Creston (Hardy, 1927, p. C38). Cranbrook (Cowan, 1937, p. K17). *New Westminster Dist.*, Hatzic (Cope, 1894, p. 181). Vancouver (Cowan, 1937, p. K17). *Similkameen Dist.*, Penticton (Cowan, 1937, p. K17). VANCOUVER ISLAND. *Esquimalt Dist.*, Langford Station (Carl, 1942a, p. 56).

Ambystoma maculatum Shaw
SPOTTED SALAMANDER

Range in Canada: From Rainy River District, Ontario eastward through Quebec, New Brunswick, Prince Edward Island, and Nova Scotia to Cape Breton Island; northward in Ontario to about 50° Latitude, and in Quebec to Gaspe. Map 7.

Canadian locality records: NEW BRUNSWICK. Southcentral and northern New Brunswick (Bleakney, 1958, pp. 65, 79). NOVA SCOTIA. Throughout the Province (Bleakney, 1952, p. 125). Annapolis Valley (Bleakney, 1958, pp. 65, 79). *Cumberland Co.*, Oxford (Bleakney, 1958, pp. 65, 79). *Halifax Co.*, Halifax (Hay, 1892, p. 436). *Inverness Co.*, Upper Margaree River (ROM). ONTARIO. *Bruce Co.*, Lucknow (ROM). *Cochrane Dist.*, Kapuskasing (ROM). *Essex Co.*, Pelee Island (ROM). *Frontenac Co.*, Kingston (ROM). *Grey Co.*, Meaford (ROM). *Lincoln Co.*, St. Catharines (ROM). *Middlesex Co.*, Bryanston (Elliot, 1905, p. 176). *Nipissing Dist.*, Lake Timagami (Coventry, 1931, p. 109). *Parry Sound Dist.*, Seguin Falls (ROM). *Prince Edward Co.*, Cressy (Logier, 1941, p. 95). *Rainy River Dist.*, Atikokan (PC: A. F. Helmsley); (QPM). *Sudbury Dist.*, Chapleau (ROM). *Thunder Bay Dist.*, Fairlock, Shakespeare Island in Lake Nipigon (ROM). *York Co.*, Toronto (ROM). PRINCE EDWARD ISLAND. *Prince Co.*,



Map 6. *Ambystoma macrodactylum*

Map 7. *Ambystoma maculatum*

Ellerslie (ROM). QUEBEC. *Gaspe Co.*, Gaspe (Cox, 1907, p. 48). *Quebec Co.*, Quebec (ROM). *Rimouski Co.*, Bic (Trapido and Clausen, 1938, p. 118).

Ambystoma tigrinum tigrinum Green
EASTERN TIGER SALAMANDER

Range in Canada: Extreme southwestern Ontario.

Canadian locality records: ONTARIO. *Essex Co.*, Point Pelee (PC: C. L. Patch); (NMC).

Ambystoma tigrinum diaboli Dunn
GRAY TIGER SALAMANDER

Range in Canada: Southern Saskatchewan and Manitoba. Map 8.

Canadian locality records: MANITOBA. Boissevain (Dunn, 1940, p. 161). Carberry, Ninette, Shoal Lake (ROM). Winnipeg (Dunn, 1940, p. 161). SASKATCHEWAN. Assiniboia, Belanger Creek, Cypress Lake (ROM). Dundurn (PC: W. H. Beck); (USM). Estevan (PC: R. W. Nero). Indian Head (ROM). Loomis (PC: W. H. Beck); (USM). Prince Albert (PC: R. W. Nero). Saskatoon (ROM).

Ambystoma tigrinum melanostictum Baird
BLOTCHED TIGER SALAMANDER

Range in Canada: Southeastern British Columbia, southern half of Alberta, southwestern Saskatchewan. Map 9.

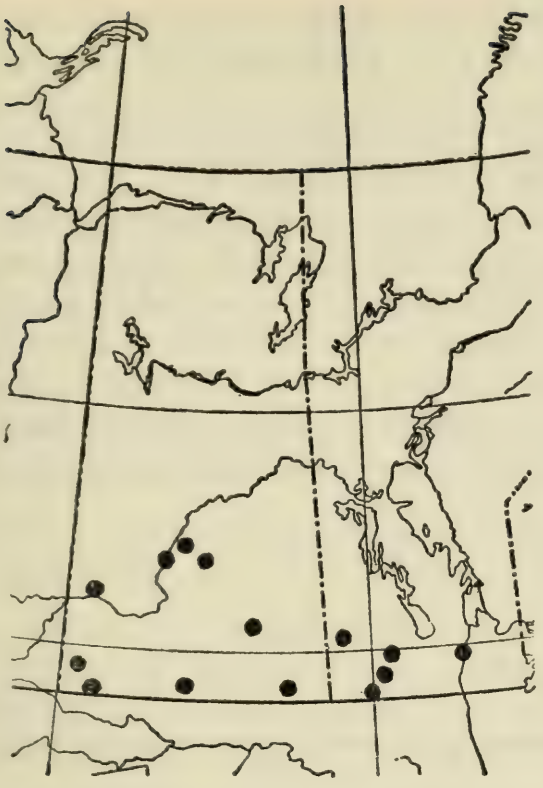
Canadian locality records: ALBERTA. Aldersyde (Fowler, 1935, p. 60). Edmonton (ROM). High River (Fowler, 1934, p. 140). Lethbridge, Munson, Red Deer, Waterton Park (ROM). BRITISH COLUMBIA. *Osoyoos Dist.*, Brent Lake near Summerland (ROM).* *Similkameen Dist.*, Midway (Dunn, 1940, p. 159); (NMC). Osoyoos (PMBC). SASKATCHEWAN. Kyle (ROM).

FAMILY SALAMANDRIDAE

Diemictylus viridescens viridescens Rafinesque
RED-SPOTTED NEWT

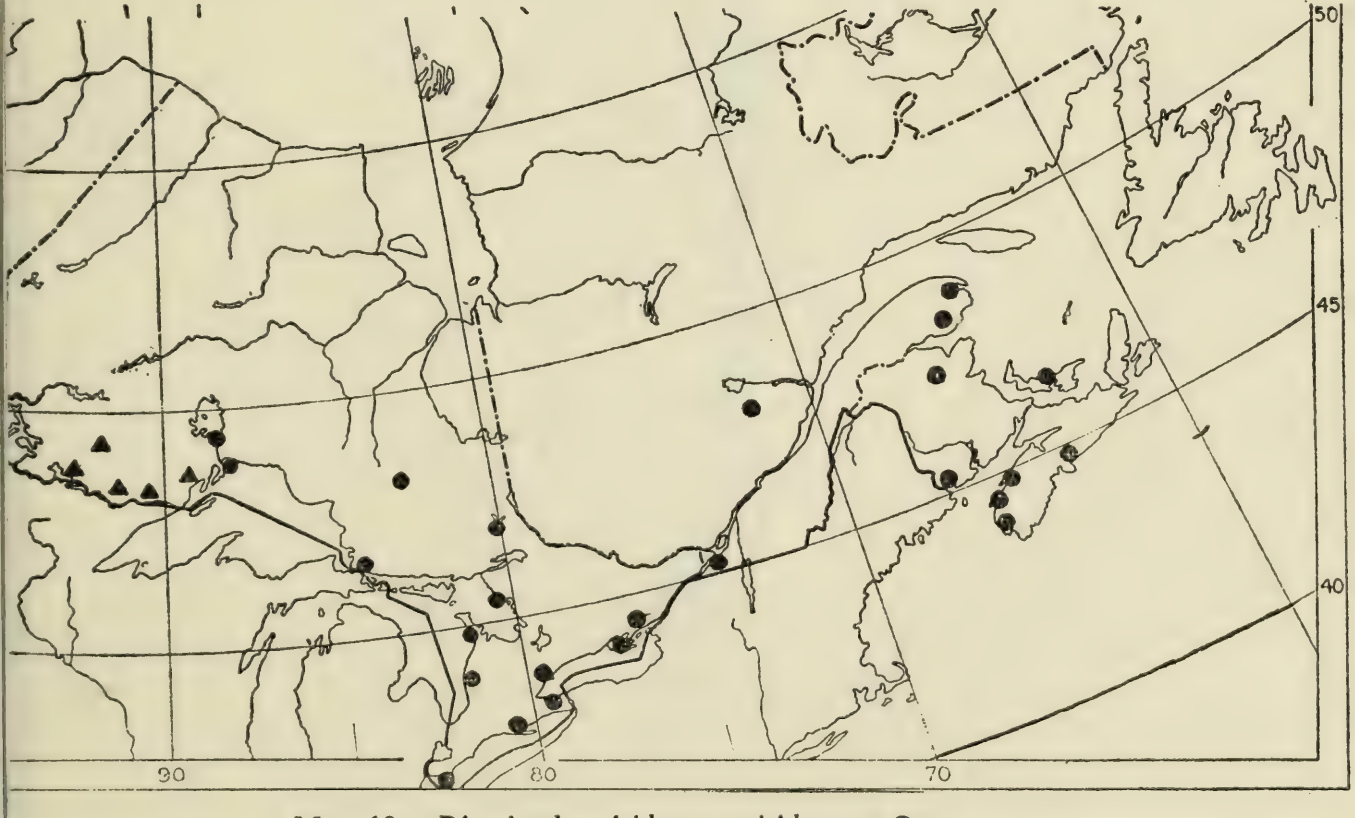
Range in Canada: From about 89° Longitude in Thunder Bay District eastward through Quebec including Gaspe, and New Brunswick to Nova Scotia and Prince Edward Island. All records from south of 50° Latitude. Map 10.
Canadian locality records: NEW BRUNSWICK. *Charlotte Co.*, Chamcook Lake (Reid, 1930, p. 465). *Northumberland Co.*, Peabody Lake (ROM). NOVA SCOTIA. Throughout the province (Bleakney, 1952, p. 125). Annapolis Valley (Bleakney, 1958, pp. 65, 79). *Digby Co.*, Digby (ROM).

*Larval specimens reported as *Ambystoma gracile*, Logier, 1932, p. 316.



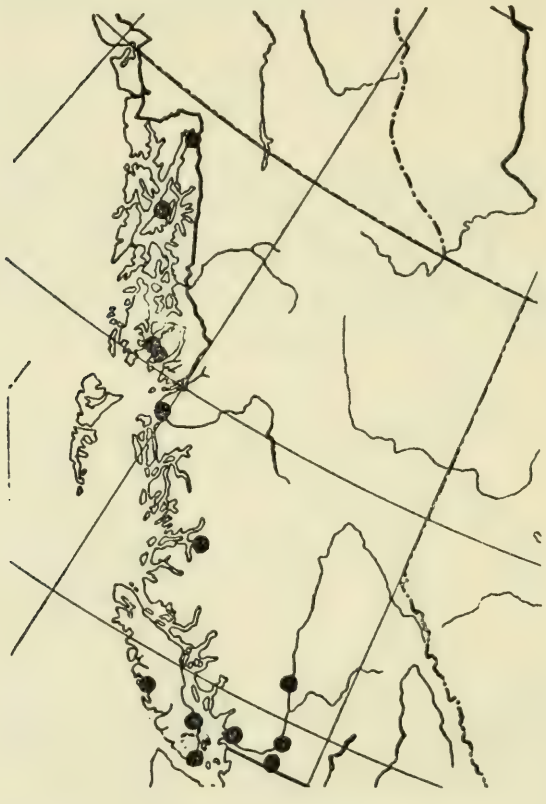
Map 8. *Ambystoma tigrinum diaboli*

Map 9. *Ambystoma tigrinum melanostictum*



Map 10. ***Diemictylus viridescens viridescens*** ●
Diemictylus viridescens viridescens louisianensis ▲

Halifax Co., Halifax (Jones, 1865, p. 127). *Victoria Co.*, Perth Twp. (ROM). *Yarmouth Co.* (Dunn, 1918, p. 451). ONTARIO. *Algoma Dist.*, Maclennan (ROM). *Bruce Co.*, Lucknow, Pike Bay (ROM). *Essex Co.*, Pelee Island (ROM). *Leeds Co.*, Marble Rock (Toner and de St. Remy, 1941, p. 10). *Lincoln Co.*, St. Catharines (ROM). *Nipissing Dist.*, Lake Timagami (Coventry, 1931, p. 109). *Norfolk Co.*, Long Point (ROM). *Parry Sound Dist.*, Franklin Island (ROM). *Prince Edward Co.*, Hallowell, Picton (ROM). *Sudbury Dist.*, Foleyet Twp. (ROM). *Thunder Bay Dist.*, near Macdiarmid, St. Ignace Island (ROM). *York Co.*, Toronto (ROM). PRINCE EDWARD ISLAND. *Queens Co.*, Afton Lake (Cox, 1889b, p. 194). QUEBEC. *Gaspe Co.* (Ball, 1937, p. 230). Grand Pabos Valley (Cox, 1899b, p. 194). *Huntington Co.*, Covey Hill (ROM). *Laurentides National Park* (Vladykov, 1941, p. 83).



Map 11. *Taricha granulosa granulosa*

Diemictylus viridescens louisianensis Wolterstorff
CENTRAL NEWT

Range in Canada: West from about 89° Longitude through southern Thunder Bay and Rainy River districts. Map 10.

Canadian locality records: ONTARIO. *Rainy River Dist.*, Atikokan (ROM). Quetico Park (PC: A. F. Helmsley); Rainy Lake at Falls River (ROM). (QPM). *Thunder Bay Dist.*, Hazelwood Lake, Polly Lake (PC: A. E. Allin); (ROM).

Taricha granulosa granulosa Skilton
NORTHERN ROUGH-SKINNED NEWT

Range in Canada and Alaska: Coastal British Columbia and Alaska northward to Juneau; Vancouver Island. Map 11.

Canadian and Alaskan locality records: ALASKA. Admiralty Island (Storer, 1925, p. 49). Hassler Harbour (Slevin, 1928, p. 24). Juneau (PC: W. J. Riemer). Thorn Bay on Revillagigado Island (PC: A. Loveridge); (MCZ). BRITISH COLUMBIA. MAINLAND. *Coast Dist., Range 3*, Bella Coola (Cowan, 1937, p. K17); (PMBC). *Coast Dist., Range 5*, Metlakatla (Slevin, 1928, p. 24). *Lillooet Dist.*, Seton Creek near Lillooet (Cowan, 1937, p. K17); (PMBC). *New Westminster Dist.*, Chilliwack River (Boulenger, 1882, p. 20). Vancouver (Carl, 1943, p. 25). *Yale Dist.*, Hope (Cowan, 1937, p. K17); (PMBC). VANCOUVER ISLAND. *Clayoquot Dist.*, Tofino (Cowan, 1937, p. K17). *Nanaimo Dist.*, Nanaimo, Newcastle Island (ROM). *Victoria Dist.*, Victoria (Cowan, 1937, p. K17); (PMBC).

Desmognathus fuscus fuscus Rafinesque
NORTHERN DUSKY SALAMANDER

Range in Canada: Southern Ontario near Niagara River, extreme southern Quebec, southern New Brunswick. Map 12.

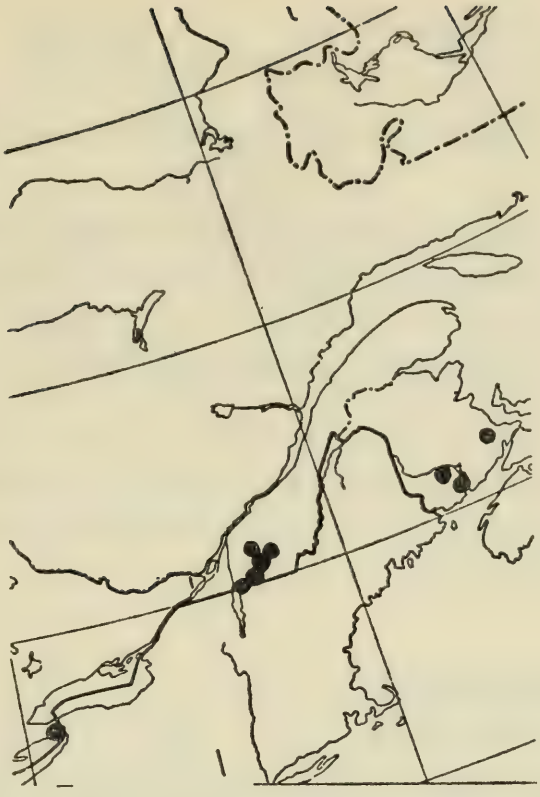
Canadian locality records: NEW BRUNSWICK. *Kings Co.*, Browns Flats (ROM). *Sunbury Co.*, Oromocto (Dunn, 1926a, p. 93). *Westmorland Co.*, Scoudouc (PC: S. Bleakney); (NMC). *York Co.*, *Fredericton* (Bleakney, 1954, p. 168); (NMC). ONTARIO. *Welland Co.*, "Opposite Buffalo, New York" (Bishop, 1943, p. 188). QUEBEC. *Brome Co.*, Knowlton (Bleakney, 1954, p. 168); (NMC). Memphremagog (ROM). *Compton Co.*, East Angus (PC: S. Bleakney). *Missisquoi Co.*, Phillipsburg (PC: S. Bleakney). *Richmond Co.*, Windsor (PC: S. Bleakney). *Sherbrook Co.*, Sherbrook (Bleakney, 1954, p. 168); (NMC).

Plethodon cinereus cinereus Green
RED-BACKED SALAMANDER

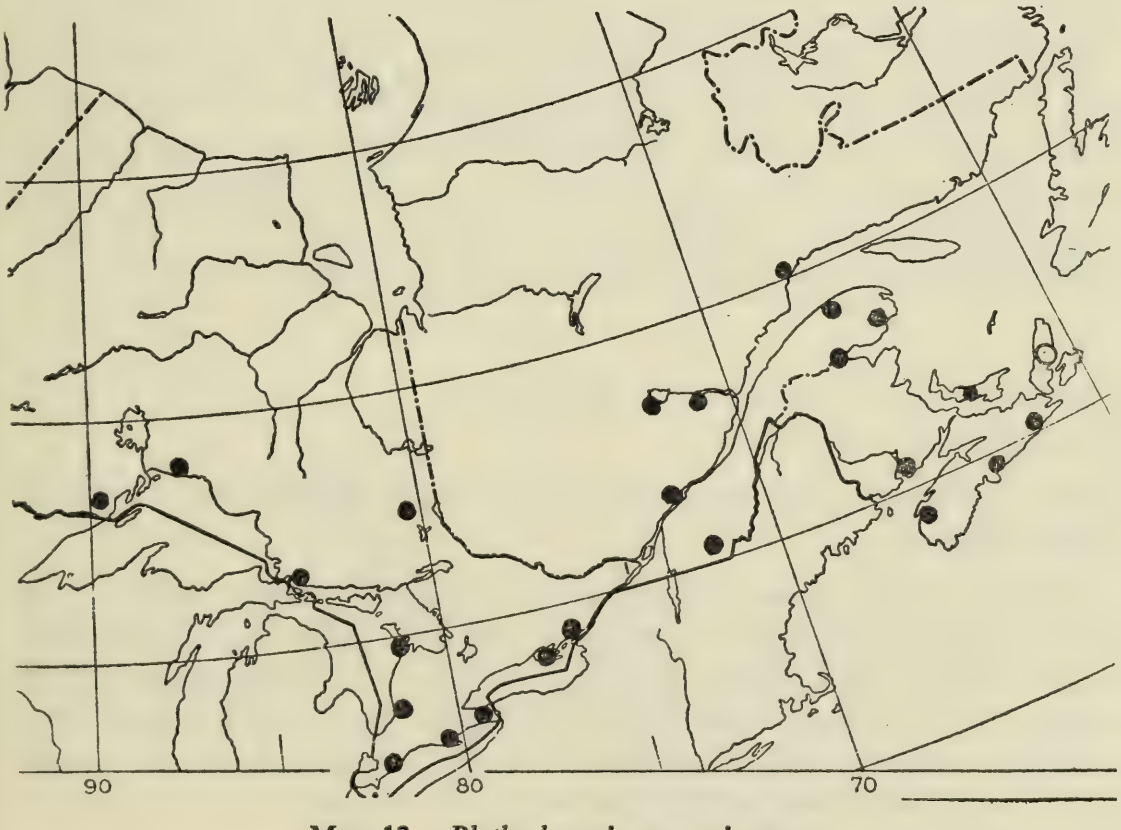
Range in Canada: From Rainy River District, Ontario eastward through Quebec and New Brunswick to Prince Edward Island and Nova Scotia. Map 13.

Canadian locality records:* NEW BRUNSWICK. Northern and southcentral New Brunswick (Bleakney, 1958, pp. 65, 82). *Kings Co.*, Lily Lake north of St. John (Dunn, 1918, p. 462). NOVA SCOTIA. Throughout the province (Bleakney, 1952, p. 125). *Cape Breton Island* (Bishop, 1943, p. 232). *Digby Co.*, Digby (PC: A. Loveridge); (MCZ). *Halifax Co.*, Ecum Secum (ROM). Halifax (Jones, 1865, pp. 126–127). ONTARIO. *Algoma Dist.*, Maclennan (ROM). *Bruce Co.*, Wiarton (ROM). *Huron Co.*, Clinton (ROM). *Kent Co.*, Rondeau Park (ROM). *Leeds Co.*, Gananoque (ROM). *Lincoln Co.*, De Cew Falls (ROM). *Nipissing Dist.*, Montreal River (ROM). *Norfolk Co.*, Turkey Point (ROM). *Prince Edward Co.*, Hallowell (ROM). *Rainy River Dist.*, Quetico Park (Lindeborg, 1950, p. 86). *Thunder Bay Dist.*, O'Connor Twp. (ROM). Paipoonge and Pardee Twps. (Allin, 1950, p. 93). Schreiber (ROM). PRINCE EDWARD ISLAND. (Cox, 1907, p. 52). *Queens Co.*, Hunter River (PC: S. Bleakney); (NMC). QUEBEC. *Bonaventure Co.*, Maquasha Wharf (ROM). *Gaspe Co.*, Perce Twp. (Trapido and Clausen, 1938, p. 118). *Lake St. John Co.*, Lake St. John (Bleakney, 1954, p. 168); (NMC). Val Jalbert (Trapido and Clausen, 1938, p. 118). *Portneuf Co.*, Neuville (ROM). *Roberval Co.*, Seigneurie de Mont Louis (Trapido and Clausen, 1938, p. 118). *Saguenay Co.*, Matamek River (Bleakney, 1954, p. 168); (NMC). *Sherbrook Co.*, Sherbrook (Trapido and Clausen, 1938, p. 118).

*Cope (1889), p. 135) reports this salamander as collected by C. Drexler in "Hudson's Bay Territory". He does not state at what locality, or whether in Ontario or Quebec. Preble (1902, p. 134) suggests that it was probably from the region of James Bay.



Map 12. *Desmogathus fuscus fuscus*



Map 13. *Plethodon cinereus cinereus*

Plethodon vehiculum Cooper
WESTERN RED-BACKED SALAMANDER

Range in Canada: Southwestern British Columbia and Vancouver Island. Map 14.

Canadian locality records: BRITISH COLUMBIA. MAINLAND. *New Westminster Dist.*, Cultus Lake (ROM). Vancouver (Watney, 1938, p. 89). *Yale Dist.*, Hope (Patch, 1929, p. 138); (NMC). VANCOUVER ISLAND. *Clayoquot Dist.*, Tofino (ROM). Uculet (Patch, 1929, p. 138); (NMC). *Goldstream Dist.*, Goldstream (Cowan, 1937, p. K18); (PMBC). *Nelson Dist.*, Union Bay (Dunn, 1926a, p. 156). *Renfrew Dist.*, Port Renfrew (Cowan, 1937, p. K18); (PMBC). *Rupert Dist.*, Quatsino (PMBC). *Sooke Dist.*, Sooke (Cowan, 1937, p. K18); (PMBC). *South Saanich Dist.*, Brentwood (Cowan, 1937, p. K18); (PMBC).

Hemidactylium scutatum Schlegel
FOUR-TOED SALAMANDER

Range in Canada: Southern Ontario, presumably through southern Quebec and New Brunswick to Nova Scotia. Map 15.

Canadian locality records: NOVA SCOTIA. *Annapolis Co.*, Long Lake, McGill Lake (Bleakney and Cook, 1957, p. 142). *Halifax Co.*, Armdale (Bleakney, 1954, p. 168); (NSMS). *Queens Co.*, Mill Village (Bleakney, 1954, p. 168); (NSMS). *Victoria Co.*, Baddeck Bay (Richmond, 1952, pp. 331–2); (CM). ONTARIO. *Brant Co.*, Paris (ROM). *Frontenac Co.*, about ten miles north of Arden (PC: R. V. Lindsay). *Lennox and Addington Co.*, Skootamata Lake (PC: S. Bleakney); (NMC). *Lincoln Co.*, St. Catharines (Cope, 1889, p. 131). *Manitoulin Dist.*, McGregor Bay (ROM). *Middlesex Co.*, London (ROM). *Muskoka Dist.*, Go Home Bay (ROM). *Norfolk Co.*, Turkey Point (ROM). *Parry Sound Dist.*, Franklin Island (ROM). *Peterborough Co.*, Bald Lake, Lakefield (ROM). QUEBEC. *Gatineau Co.*, Glen Eagle (Bleakney, 1954, p. 168); (NMC). *Iberville Co.*, Mount Johnson (PC: S. Bleakney; N. S. Denman, in press with Can. Field-Nat); (NMC).

Ensatina eschscholtzi oregonensis Girard
OREGON SALAMANDER

Range in Canada: Southwestern British Columbia including Vancouver Island. Map 16.

Canadian locality records: BRITISH COLUMBIA. MAINLAND. *Coast Dist., Range 1*, Redonda Island (Carl, 1949, p. 139). *New Westminster Dist.*, Cultus Lake (Logier, 1932, p. 318); (SC). Gambier Island (Carl, 1943, p. 34); (PMBC). Vancouver (ROM). *Yale Dist.*, Hope (Cowan, 1937, p. K18); (PMBC). VANCOUVER ISLAND. *Cowichan Lake Dist.*, Cowichan Lake (Carl, 1940, p. 129); (PMBC).

Map 14. *Plethodon vehiculum*

Map 15. *Hemidactylium scutatum*

Map 16. *Ensatina eschscholtzi oregonensis*

Gyrinophilus porphyriticus porphyriticus Green
NORTHERN SPRING SALAMANDER

Range in Canada: Southern Ontario at Niagara River; easern Ontario and southwestern Quebec. Map 17.

Canadian locality records: ONTARIO. *Carleton Co.*, Britannia (Bleakney, 1954, p. 168); (NMC). *Welland Co.*, Opposite Buffalo, New York (Dunn, 1926a, p. 265). QUEBEC. *Brome Co.*, Iron Hill (Hall, 1947, p. 68); (NMC). Glen Sutton, Knowlton Landing (PC: S. Bleakney); (NMC). *Shefford Co.*, Waterloo (PC: S. Bleakney); (NMC).

Aneides ferreus Cope
CLOUDED SALAMANDER

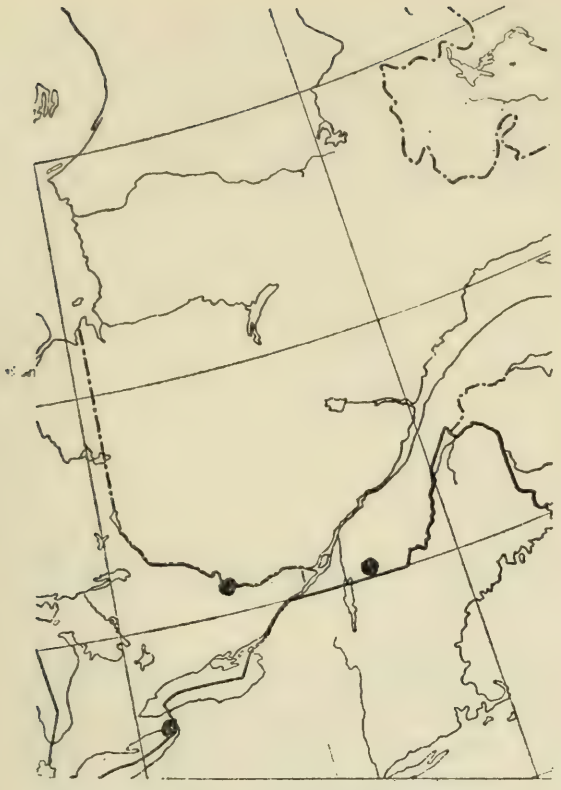
Range in Canada: Vancouver Island and some of the adjacent islands of the British Columbia coast. Map 18.

Canadian locality records: BRITISH COLUMBIA, COASTAL ISLANDS. *Coast Dist., Range 1*, Cracroft Island (Schmidt, 1953, p. 50). VANCOUVER ISLAND. *Clayoquot Dist.*, Tofino (Cowan, 1937, p. K18). *Cowichan Lake Dist.*, Bayne (=Mayne) Island (Storer, 1925, p. 118). *Highland Dist.*, Mount Finlayson (Hardy, 1926, p. C23); (PMBC). *Lake and Victoria Dists.*, Mount Douglas (Hardy, 1926, p. C23); (PMBC). *Nanaimo Dist.*, Denman Island (Dunn, 1926a, p. 210). Hornby Island (Cowan, 1937, p. K18). Nanaimo (ROM). *Nelson Dist.*, Union Bay (Cowan, 1937, p. K18). *North Saanich Dist.*, Sidney (Hardy, 1926, p. C23); (PMBC). *Rupert Dist.*, Quatsino (PMBC). *Sooke Dist.*, Sooke (Cowan, 1937, p. K18).

Eurycea bislineata bislineata Green
NORTHERN TWO-LINED SALAMANDER

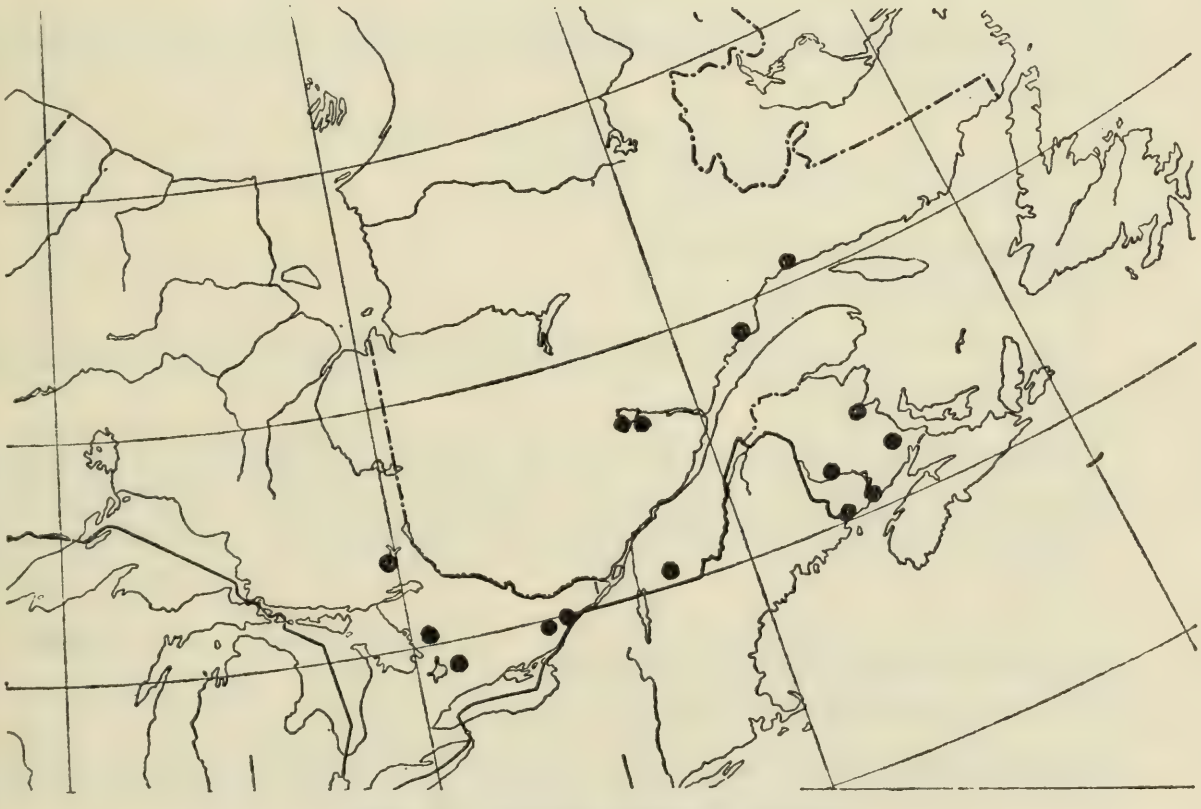
Range in Canada: Southern Ontario east of Georgian Bay, eastward into New Brunswick; northward in Quebec to Lake St. John and the Matamek River. Map 19.

Canadian locality records: NEW BRUNSWICK. *Charlotte Co.*, St. Andrews (ROM). *Kings Co.*, Browns Flats (Bleakney, 1954, p. 168); (NMC). *Northumberland Co.*, Chatham (ROM). *Restigouche Co.*, Dalhousie (Bleakney, 1954, p. 168); (NMC). *Westmorland Co.*, 7 mi. N. of Moncton (PC: S. Bleakney); (NMC). *York Co.*, Scotch Lake (Bleakney, 1954, p. 168); (NMC). ONTARIO. *Dundas Co.*, Morrisburg (ROM). *Muskoka Dist.*, Huntsville (ROM). *Nipissing Dist.*, Lake Timagami (ROM). *Victoria Co.*, Coboconk (ROM). QUEBEC. *Chicoutimi Co.*, Lake Kenogami (ROM). *Lake St. John Co.*, Val Jalbert (Trapido and Clausen, 1938, p. 118); (ROM). *Saguenay Co.*, Godbout (Dunn, 1926, p. 304). Lake up Matamek River (ROM). *Sherbrooke Co.*, Sherbrooke (Trapido and Clausen, 1938, p. 118).



Map 17. *Gyrinophilus porphyriticus porphyriticus*

Map 18. *Aneides ferreus*



Map 19. *Eurycea bislineata bislineata*

Order Salientia

FAMILY ASCAPHIDAE

Ascaphus truei truei Stejneger
OLYMPIC TAILED FROG

Range in Canada: Southwestern corner of British Columbian mainland. Map 20.

Canadian locality records: BRITISH COLUMBIA. *Coast Dist., Range 1*, Hovel Bay (Carl, 1955, p. 202). *Kamloops Dist.*, Lytton (Slipp and Carl, 1943, p. 127). *New Westminster Dist.*, Liumchen (=Lihumitson) Creek, Reservoir Creek, Smith Creek (Ricker and Logier, 1935, p. 46); (ROM). Hatzic (Slipp and Carl, 1943, p. 127). Sunshine Creek near Vancouver (Carl and Cowan, 1945b, p. 52). *Yale Dist.*, Allison Pass, 3 miles west of Buckhorn Camp at 6,000 ft., Timberline Valley at 6,500 ft., Three Brothers Area, 4 miles west of North Star Creek (Carl, Guiguet and Hardy, 1952, p. 110). Manning Park (Carl, 1949, p. 140).

Ascaphus truei montanus Mittleman and Myers
ROCKY MOUNTAIN TAILED FROG

Range in Canada: British Columbia adjacent to western Montana (Schmidt, 1953, p. 57).

FAMILY PELOBATIDAE

Scaphiopus bombifrons Cope
PLAINS SPADEFOOT

Range in Canada: Southern Alberta and western Saskatchewan to north of 51° Latitude. Map 21.

Canadian locality records: ALBERTA. Barons, Claresholm (ROM). Empress (UA). Orien, St. Kilda (ROM). SASKATCHEWAN. Alsask (ROM). Bengough, Elbow (PC: R. W. Nero). Roche Percee (PC: S. Bleakney); (NMC).

Scaphiopus hammondi intermontanus
GREAT BASIN SPADEFOOT

Range in Canada: Okanagan and Similkameen valleys of British Columbia northward to southern Kamloops District. Map 21.

Canadian locality records: BRITISH COLUMBIA. *Kamloops Dist.*, Kamloops (Carl, 1943, p. 40); (PMBC). *Similkameen Dist.*, Keremeos (Patch, 1929, p. 138); (NMC). Oliver (Carl, 1942b, p. 129). Osoyoos (Carl, 1943, p. 40); (PMBC). Penticton (Carl, 1942b, p. 129). *Osoyoos Dist.*, Okanagan Landing (Patch, 1929, p. 138); (NMC). Summerland (ROM).

Map 20. *Ascaphus truei truei*

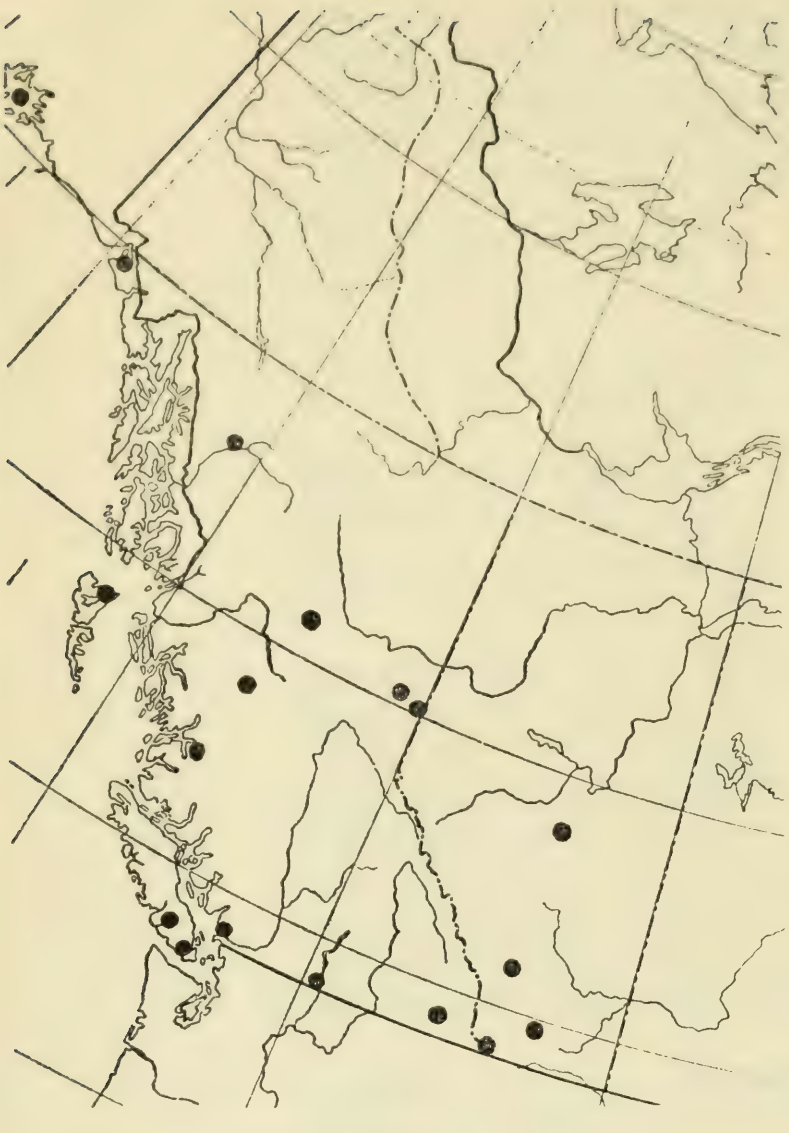
Map 21. *Scaphiopus bombifrons* ▲
Scaphiopus hammondi intermontanus ●

FAMILY BUFONIDAE

Bufo boreas boreas Baird
BOREAL TOAD

Range in Canada and Alaska: Southern Alaska, British Columbia and Alberta. Map 22.

Canadian and Alaskan locality records: ALASKA. Prince William Sound (Van Denburgh, 1898, p. 139). Yakutat (ROM). ALBERTA. Edmonton (PMBC). High River (Fowler, 1934, p. 139). Waterton Lakes, Whitney Creek (ROM). BRITISH COLUMBIA. MAINLAND. *Cassiar Dist.*, Lake Tetana (Stanwell-Fletcher, 1940, p. 137); (PMBC). Telegraph Creek



Map 22. *Bufo boreas boreas*

(Storer, 1925, p. 169). *Coast Dist., Range 3*, Bella Coola (Cowan, 1937, p. K19). *Coast Dist., Range 4*, Ootsa Lake (Cowan, 1937, p. K19). *Kootenay Dist.*, Cranbrook (Cowan, 1937, p. K19). *New Westminster Dist.*, Vancouver (Slevin, 1928, p. 92). *Peace River Dist.*, Hudson Hope (ROM). Tupper Creek (PMBC). *Similkameen Dist.*, Osoyoos (PMBC). *Queen Charlotte Islands Dist.*, Masset (Storer, 1925, p. 169). VANCOUVER ISLAND. *Alberni Dist.*, Alberni Valley (Cowan, 1937, p. K19). *Cowichan Lake Dist.*, Cowichan Lake (Newcombe, 1931, p. C19); (PMBC).

Bufo cognatus Say

GREAT PLAINS TOAD

Range in Canada: Southern Alberta and Saskatchewan. Map 23.

Canadian locality records: ALBERTA. Empress, Lost River (Moore, 1953a, pp. 180–1); (UA). Medicine Hat (ROM). Suffield, Taber, Vauxhall (Moore, 1953a, pp. 180–1; (UA). SASKATCHEWAN. Southern part (Schmidt, 1953, p. 62). 6.5 miles east of Maple Creek (PS: S. Bleakney); (NMC).

Map 23. *Bufo cognatus*

Map 24. *Bufo americanus americanus*

Bufo americanus americanus Holbrook
AMERICAN TOAD

Range in Canada: From extreme eastern Manitoba to Cape Breton Island, Nova Scotia; northward in Ontario to Favourable Lake and James Bay, and in Quebec to Godbout and Harrington Harbour. Intergrading with the race *copei* in the northern portion of its range. Map 24.

Canadian locality records: MANITOBA. Brightstone, Vivian, Whitemouth Lake (PC: L. T. S. Norris-Elye). NEW BRUNSWICK. *Charlotte Co.*, St. James (ROM). *Gloucester Co.*, Shippigan (ROM). NOVA SCOTIA. *Cape Breton Co.*, Cape Breton (ROM). *Halifax Co.*, Bedford, Moser River (ROM). *Yarmouth Co.*, Wedgeport (ROM). ONTARIO. *Algoma Dist.*, Gros Cap (ROM). *Bruce Co.*, Hopkins Bay (ROM). *Cochrane Dist.*, Onakawana, Smoky Falls (ROM). *Essex Co.*, Point Pelee (ROM). *Frontenac Co.*, Kingston (Toner and de St. Remy, 1941, p. 12). *Huron Co.*, Londesborough (ROM). *Norfolk Co.*, Long Point (ROM). *Parry Sound Dist.*, Franklin Island (ROM). *Patricia Dist.*, Favourable Lake, Lake Attawapiskat (ROM). *Rainy River Dist.*, Big Fork, Sable Island (ROM). Quetico Park (Lindeborg, 1950, p. 86). *Thunder Bay Dist.*, St. Ignace Island, Lake Nipigon (ROM). PRINCE EDWARD ISLAND. *Kings Co.*, Souris (ROM). QUEBEC. *Bonaventure Co.*, Little Cascapedia (Trapido and Clausen, 1938, p. 120). *Laurentides National Park*, Lac a Noel (Vladykov, 1941, pp. 83–4). *Saguenay Co.*, Godbout, Harrington Harbour (ROM).

PRELIMINARY REMARKS ON *Bufo americanus copei*

In our attempt to summarize and map the range of the race *B. a. copei* separately from that of *B. a. americanus* we encountered some practical difficulty, because in order to assign geographic ranges to the races of any species it is necessary to comprehend with reasonable certainty the physical characters by which they may be distinguished from each other and identified. For the purpose of comparison with *americanus* we used the following published characters of *copei*: contrasty pattern; wide dorsal stripe; heavy, extensive ventral mottling; shorter legs and feet; longer, narrower parotoid glands; more nearly parallel and more widely spaced cranial crests; smoother ventral granulation.

In the course of examination of specimens it became apparent that: (a) while the James Bay material was usually distinguishable by its colour pattern, it often did not agree with *copei* in structural characters; and (b) that inland from James Bay both colour pattern and structural features were intergraded and indiscriminately mixed up, both as between individuals of the same populations and of different populations. Indeed, in terms of these characters, we often found it a frustrating task to try to distinguish *copei* from the variations of *americanus*.

Netting and Goin (1946, p. 107) gave the range of *copei* as "Forested portions of the James Bay drainage of Ontario and Quebec, east coast of Hudson Bay at least to Great Whale River, and Labrador." If this interpretation is right, then (in Ontario at least) *americanus* appears to be the dominant race over most of the range of *copei*, which suggests a rather anomalous situation as between two races of the same species. Gaige (1932, p. 134) and Netting (1933, PC) reported intergrades between *copei* and *americanus* from points within forty miles north of North Bay, Ontario. Vladykov (1941, p. 83) reported *americanus* and *copei* as "quite often found together in the same lake" in Laurentides Park, Quebec, but that *copei* "more typically frequents higher altitudes."

It is true that there is a notable tendency for certain characters, viz., brilliant pattern, presence of red, wide dorsal stripe, a wide lateral light stripe underscored with black, heavy ventral mottling, more nearly parallel cranial crests and shorter legs, to appear more frequently in northern populations, but not consistently, and the overlap (as already remarked upon) between individuals of populations of different areas is considerable. It follows that identification of specimens in many cases becomes an arbitrary matter, i.e., at what point of intergradation should a specimen be called *copei*—which ones, and how many, of the various characters should it possess, and to what degree of development?

We are not here attempting to refute the validity of *copei*, which we feel is in need of much closer study, but simply pointing out some plain facts of the problem encountered, since it affects our method of mapping. At the same time, we cannot completely avoid the thought that the eastern North American toad, by whatever Latin name, or names, we care to call it, is a highly

variable animal, and that when variations appear in populations it might be reasonable to enquire whether or not they are really significant of more than just that.

Notwithstanding these difficulties, we are attempting, as well as we can, to present a map for *copei*. On it we have marked every locality of record known to us, including those of apparent intergrades with *americanus*, since we are unable to draw any certain boundary between *copei* and intergrades. We are arbitrarily assuming that the James Bay specimens are pure *copei*, even though they do not necessarily agree with all the published characters of this form. The data for within Ontario are based almost completely upon material that we have seen, but outside Ontario almost wholly upon published matter. Intergrades with *americanus*, when known, indicated thus: (intg.), and marked on the map by an open circle.

The range of *copei* as outlined below is purely provisional. It may be challenged by other workers, and is, we fully realize, open for revision in the light of further work or other evidence.

Map 25. *Bufo americanus copei* ●
Bufo americanus X copei ○

Bufo americanus copei Yarrow and Henshaw
HUDSON BAY TOAD

Range in Canada: From Labrador to James Bay; northward to Lake Melville in Labrador, to Knob Lake and Great Whale River in Quebec, and to Fort Albany in Ontario. The belt of intergradation with *americanus* apparently extends southward to well below 47° Latitude and westward to about 94° Longitude. Map 25.

Canadian locality records: LABRADOR. Flour Lake, Hamilton River below Muskrat Falls, Lake Melville at Epinette Point, Estagaulet Bay, Pike Run Cove, St. Mary's River, St. Lewis Inlet (Backus, 1954, pp. 226–7). Menihek Lake, Northwest River (Bleakney, 1954, p. 166); (NMC). ONTARIO. *Algoma Dist.*, Crooked Lake, east of Missanabie (intg.) (PC: M. G. Netting); (CM). *Cochrane Dist.*, Cochrane, 7 mi. S. W. of (PC: M. G. Netting); (CM). Fort Albany, Fraserdale (intg.), Genier (intg.), Hannah Bay, Halfway Point, Lake Abitibi (intg.) (ROM). Moose Factory (PC: M. G. Netting); (CM). Moosonee, Nettichi Point, New Post (intg.), Onakawana (intg.), Palmquist (intg.), Ship Sands, Smoky Falls (intg.), Tidal Creek (ROM). *Nipissing Dist.*, Marion Creek (intg.) (Gaige, 1932, p. 134). Tomiko River (intg.) (PC: M. G. Netting); (CM). *Patricia Dist.*, Akimiski Island (PC: F. R. Gehlbach) Favourable Lake (intg.), Lake Attawapiskat (intg.) (ROM). QUEBEC. *Abitibi Dist.*, Point Comfort (ROM). *Gaspe Co.*, Ste-Anne-des-Monts River (Trapido and Clausen, 1938, p. 120). *Laurentides National Park* (Vladykov, 1941, pp. 83–4). *Pontiac Co.*, near Wolf Lake (Grant, 1941, p. 151). *Saguenay Co.*, Cape Whittle (Trapido and Clausen, 1938, p. 120). Esquimo River (PC: R. Conant). Godbout (intg.) (ROM). St. Augustine (PC: R. Conant). Salmon Bay (Packard, 1866, p. 272). Seven Islands Bay (Speck, 1925, p. 6). *Ungava Dist.*, Carol Lake (Harper, 1956, p. 95). Great Whale River (Netting and Goin, 1946, p. 107). Knob Lake, Mile 134 (NMC) (Bleakney, 1954, p. 166). Mile 224, Muriel Lake (Harper, 1956, p. 95).

Bufo woodhousei fowleri Hinckley

FOWLER'S TOAD

Range in Canada: The Lake Erie and Lake Huron counties of Ontario. Map 26.

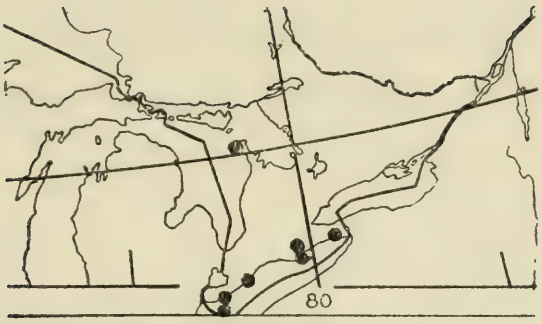
Canadian locality records: ONTARIO. *Bruce Co.*, Dorcas Bay (ROM). *Essex Co.*, Pelee Island, Point Pelee (ROM). *Kent Co.*, Erieau, Rondeau Park (ROM). *Norfolk Co.*, Long Point, Port Dover, Port Rowan (ROM). Simcoe (PC: M. Landon). Turkey Point (ROM). *Welland Co.*, Burnaby Beach, Wainfleet (ROM).

Bufo woodhousei hemiophrys Cope

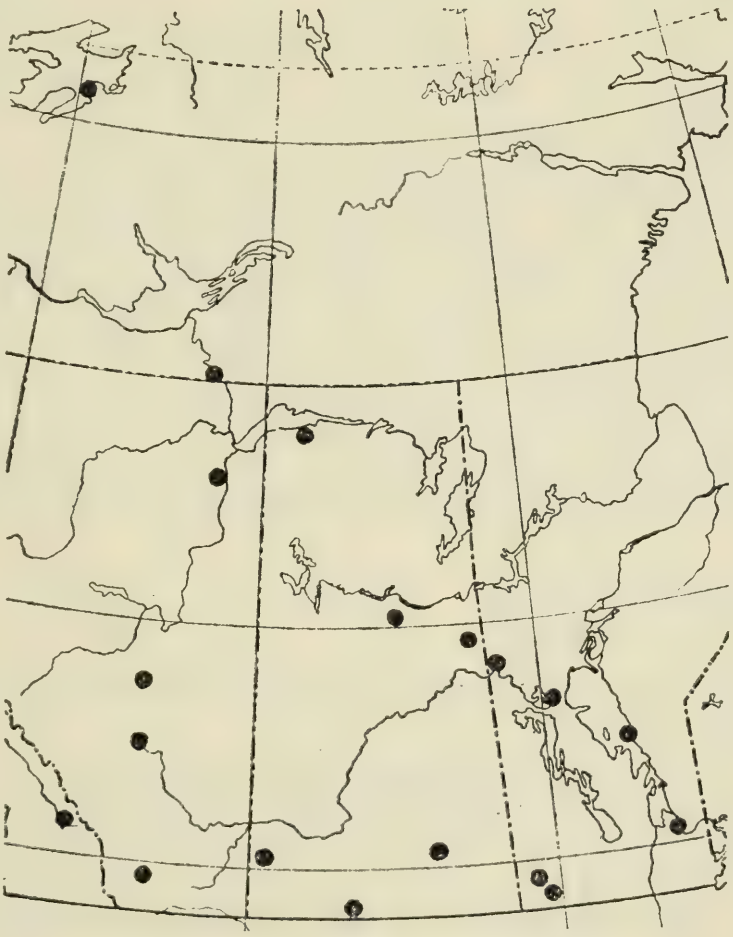
DAKOTA TOAD

Range in Canada: Alberta, Saskatchewan, Manitoba. Map 27.

Canadian locality records: ALBERTA. Athabaska River, 75 mi. downstream from Waterways (ROM). Edmonton (PC: A. Loveridge); (MCZ). Red Deer (PC: A. Loveridge); (MCZ). Spray Lakes, Whitney Creek (ROM). MANITOBA. Boissevain (Seton, 1918, p. 80). Brightstone (PC: L. T. S. Norris-Elye). Lake St. Martin (ROM). Lake Winnipeg (O'Donoghue, 1921, p. 128). Souris, The Pas (ROM). NORTHWEST TERRITORIES. *Mackenzie Dist.*, Fort Smith (Patch, 1934a, p. 146). SASKATCHEWAN. Amisk Lake (PC: W. H. Beck); (USM). Crane Lake, Indian Head (ROM). Killdeer (PC: R. W. Nero). McFarlane River (Harper, 1931a, p. 68). Sturgeon Lake (PC: W. H. Beck); (USM).



Map 26. *Bufo woodhousei fowleri*



Map 27. *Bufo woodhousei hemiophrys*

FAMILY HYLIDAE

Acris gryllus crepitans Baird
NORTHERN CRICKET FROG

Range in Canada: Pelee Island and Point Pelee, Essex County, Ontario.

Canadian locality records: ONTARIO. *Essex Co.*, Pelee Island and Point Pelee (ROM).

Hyla crucifer crucifer Wied
NORTHERN SPRING PEEPER

Range in Canada:* From eastern Manitoba to Cape Breton, Nova Scotia; northward in western Ontario to about 53° Latitude, and in Quebec to Seven Islands (just north of 50° Latitude). Map 28.

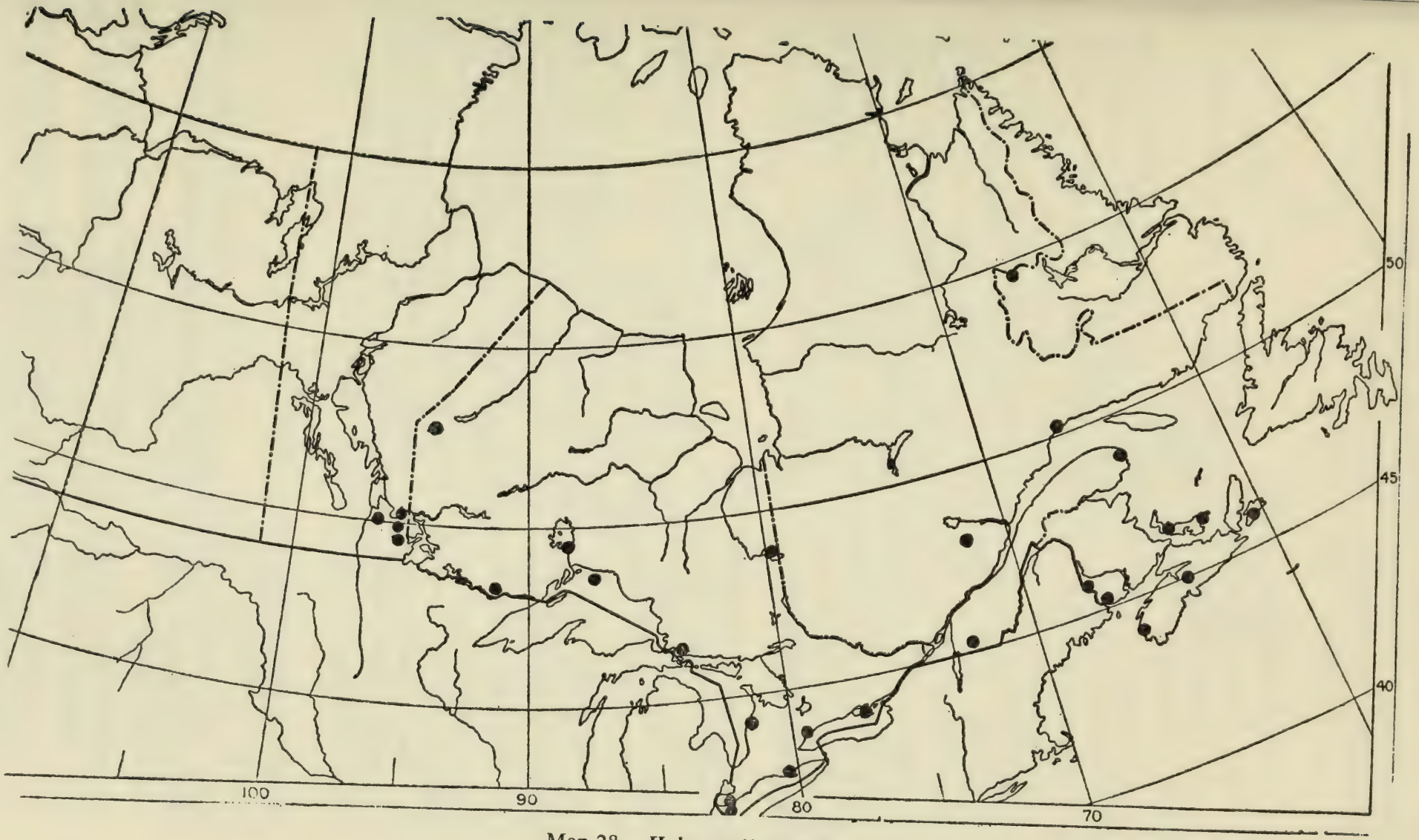
Canadian locality records: MANITOBA. Granite Lake, Lyons Lake, Pointe du Bois (PC: R. W. Sutton). Selkirk Settlement (Yarrow, 1882, p. 174). NEW BRUNSWICK. *Charlotte Co.*, Chamcook Lake (SS: *Logier*). *York Co.*, North Lake (ROM). NOVA SCOTIA. Throughout the province (Bleakney, 1952, p. 126). *Cape Breton Co.*, Cape Breton (ROM). *Yarmouth Co.*, Wedgeport (ROM). ONTARIO. *Algoma Dist.*, Maclennan (ROM). *Bruce Co.*, Lucknow (ROM). *Cochrane Dist.*, Lake Abitibi (Dymond, 1928, p. 35). *Essex Co.*, Pelee Island (Jones, 1912, p. 103). Point Pelee (Logier, 1925, p. 92); (SC). *Norfolk Co.*, Turkey Point (ROM). *Patricia Dist.*, Favourable Lake (ROM). *Prince Edward Co.*, Hallowell (ROM). *Rainy River Dist.*, Quetico Park (Lindeborg, 1950, p. 86); (QPM). *Thunder Bay Dist.*, Lake Nipigon, Slate Island (ROM). *York Co.*, Toronto; (ROM). PRINCE EDWARD ISLAND. *Kings Co.*, Souris (ROM). *Prince Co.*, Lot 16 (ROM). QUEBEC. *Gaspe Co.*, Gaspe (Cox, 1899a, p. 152). *Laurentides National Park* (Vladykov, 1941, p. 83). *Saguenay Co.*, Seven Islands (Bleakney, 1954, p. 166); (NMC). *Sherbrook Co.*, Sherbrook (Marcotte, 1918, p. 114).

Hyla regilla Baird and Girard
PACIFIC TREEFROG

Range in Canada: Southern British Columbia, northward in the Coast District into Range 4. Map 29.

Canadian locality records: BRITISH COLUMBIA. MAINLAND. *Coast Dist., Range 4*, Eutsuk Lake (Cowan, 1937, p. K19). *Kamloops Dist.*, Paul Lake (ROM). *Kootenay Dist.*, Kaslo (ROM). *New Westminster Dist.*, Cultus Lake (ROM). Jervis Inlet (Cowan, 1937, p. K19). Vancouver (Wright,

*The northern limit of the range is uncertain. A verbal report by a medical student, who claimed to have seen this frog at Menihek Lake, Labrador, was given to Bleakney (1954, p. 166). While his description could refer to nothing else, no specimen has actually been collected north of Seven Islands. Our former report of a specimen from Great Slave Lake (Logier and Toner, 1955, p. 31) was due to an error in our catalogue record, and is deleted.



Map 28. *Hyla crucifer crucifer*

1949, p. 12). *Osoyoos Dist.*, Okanagan Landing (ROM). *Similkameen Dist.*, Osoyoos (Carl, 1942b, p. 129). VANCOUVER ISLAND. *Clayoquot Dist.*, Tofino (ROM). *Esquimalt Dist.*, Esquimalt (Slevin, 1928, p. 116). *Nelson Dist.*, Union Bay (Slevin, 1928, p. 116).

Hyla versicolor versicolor Le Conte
EASTERN GRAY TREEFROG

Range in Canada: Southeastern Manitoba, southern Ontario into western Quebec; southern New Brunswick. Map 30.

Canadian locality records: MANITOBA.* Birds Hill, Pointe du Bois, Victoria Beach (PC: R. W. Sutton). Vivian, Winnipeg (ROM). NEW BRUNSWICK. *York Co.*, Nashwaak River near Fredericton (ROM). ONTARIO. *Carleton Co.*, Ottawa (Patch, 1918, p. 53). *Essex Co.*, Point Pelee (ROM). *Grey Co.*, Hanover (ROM). *Leeds Co.*, Gananoque (ROM). *Lincoln Co.*, St. Catharines (Cope, 1889, p. 376). *Manitoulin Dist.*, Mindemoya (Manitoulin Island) (ROM). *Nipissing Dist.*, Algonquin Park at Opeongo Lake (ROM). *Norfolk Co.*, Turkey Point (ROM). *Northumberland Co.*, Baltimore (ROM). *Parry Sound Dist.*, Franks Bay (ROM). *Rainy River Dist.*, Fire Lake, 10 mi. E. of Atikokan (PC: A. F. Helmsley); (QPM). *Sudbury Dist.*, Auxable and Spanish Rivers (ROM). *York Co.*, Toronto (ROM). QUEBEC. *Pontiac Co.*, Danford Lake (Bleakney, 1954, p. 166); (NMC).

Pseudacris nigrita triseriata Wied
WESTERN CHORUS FROG

Range in Canada: Southern Ontario from Lakes St. Clair and Huron into southwestern Quebec, south of 46° Latitude. Map 31.

Canadian locality records: ONTARIO. *Carleton Co.*, Ottawa (Bleakney, 1954, p. 166); (NMC). *Durham Co.*, Darlington Twp. (Allin, 1940, p. 111). *Grey Co.*, Cape Rich (ROM). *Huron Co.*, Londesborough (ROM). *Kent Co.*, Lake St. Clair (ROM). *Lambton Co.*, Thedford (ROM). *Leeds Co.*, Gananoque (ROM). *Norfolk Co.*, Port Dover (ROM). *Prince Edward Co.*, Hallowell (ROM). *Stormont Co.*, Monkland (Toner and de St. Remy, 1941, p. 10). *York Co.*, Toronto (ROM). QUEBEC. *Drummond Co.*, South Durham (PC: S. Bleakney). *Missisquoi Co.*, Phillipsburg (Bleakney, 1954, p. 166); (NMC). *Shefford Co.*, Roxton Falls, St. Joachim (PC: S. Bleakney).

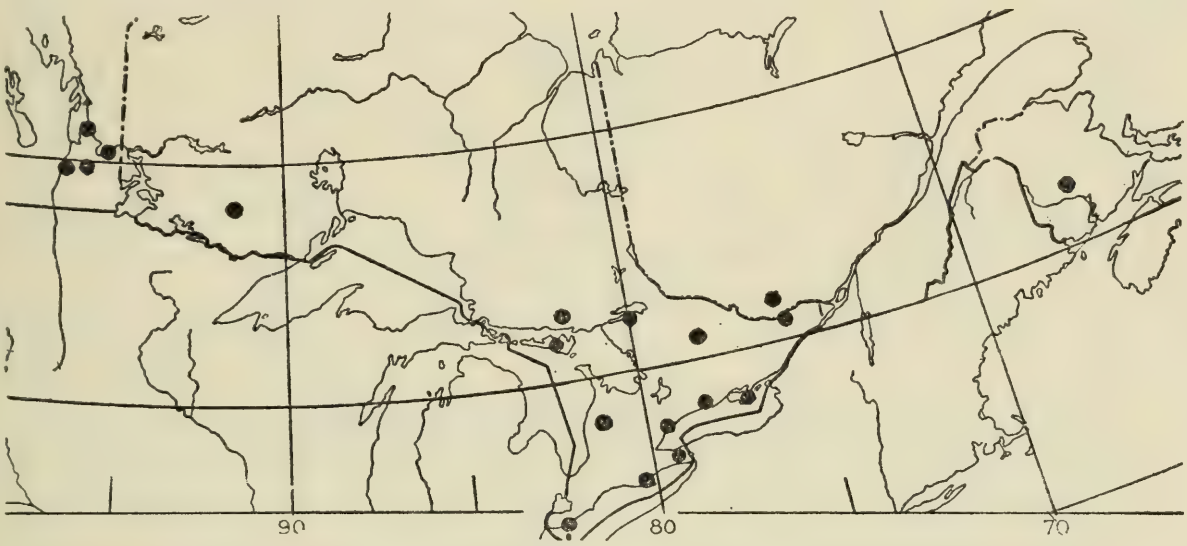
Pseudacris nigrita septentrionalis Boulenger
BOREAL CHORUS FROG

Range in Canada: From Hudson Bay and James Bay, and Rainy River District of Ontario, westward to British Columbia, and northward to Great Bear Lake. Map 32.

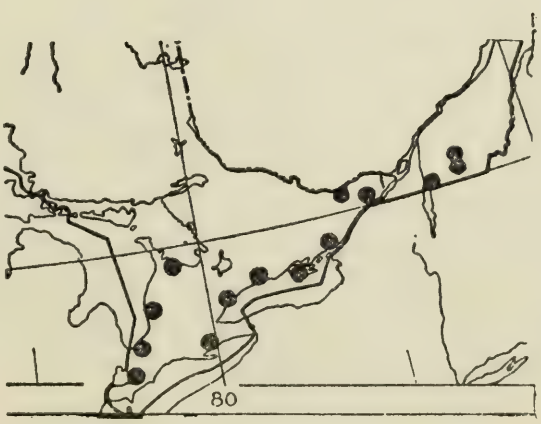
Canadian locality records: ALBERTA. Fort Chipewyan (Harper, 1931a, p. 68). High River (Fowler, 1934, p. 139). Medicine Hat (ROM). BRITISH

*Since this work went to press, the following Manitoba range extensions were received: Camperville, 11.4 mi. W. of; Killarney, 8.8 mi. N. of; Neepawa, 12.2 mi. E. of (PC: F. R. Cook); (NMC).

Map 29. *Hyla regilla*



Map 30. *Hyla versicolor versicolor*



Map 31. *Pseudacris nigrita triseriata*

Map 32. *Pseudacris nigrita septentrionalis*

COLUMBIA. *Peace River Dist.*, Charlie Lake, North Pine River (Carl, 1943, p. 46). MANITOBA. Boissevain (Seton, 1918, p. 81). Landing Lake near Churchill (Smith, 1953, p. 181). Churchill, The Pas (ROM). Winnipeg (Seton, 1918, p. 81). York Factory (Preble, 1902, p. 134). NORTHWEST TERRITORIES. *Mackenzie Dist.*, Fort Norman, Fort Resolution (Preble, 1908, p. 501). Great Bear Lake (Boulenger, 1882b, p. 335). Resdelta at Great Slave Lake (ROM). ONTARIO. *Cochrane Dist.*, Fort Albany (ROM). *Patricia Dist.*, Akimiski Island (PC: F. R. Gehlbach). Fort Severn (ROM). *Rainy River Dist.*, Emo (ROM). **Thunder Bay Dist.*, Connor Twp. (PC: A. E. Allin); (ROM). SASKATCHEWAN. Cypress Lake (ROM). Lang (PC: R. W. Nero). Quill Lake (Schmidt, 1938a, p. 377). Saskatoon (ROM). Waskesui Lake (PC: W. H. Beck); (USM).

*Received since maps were completed.

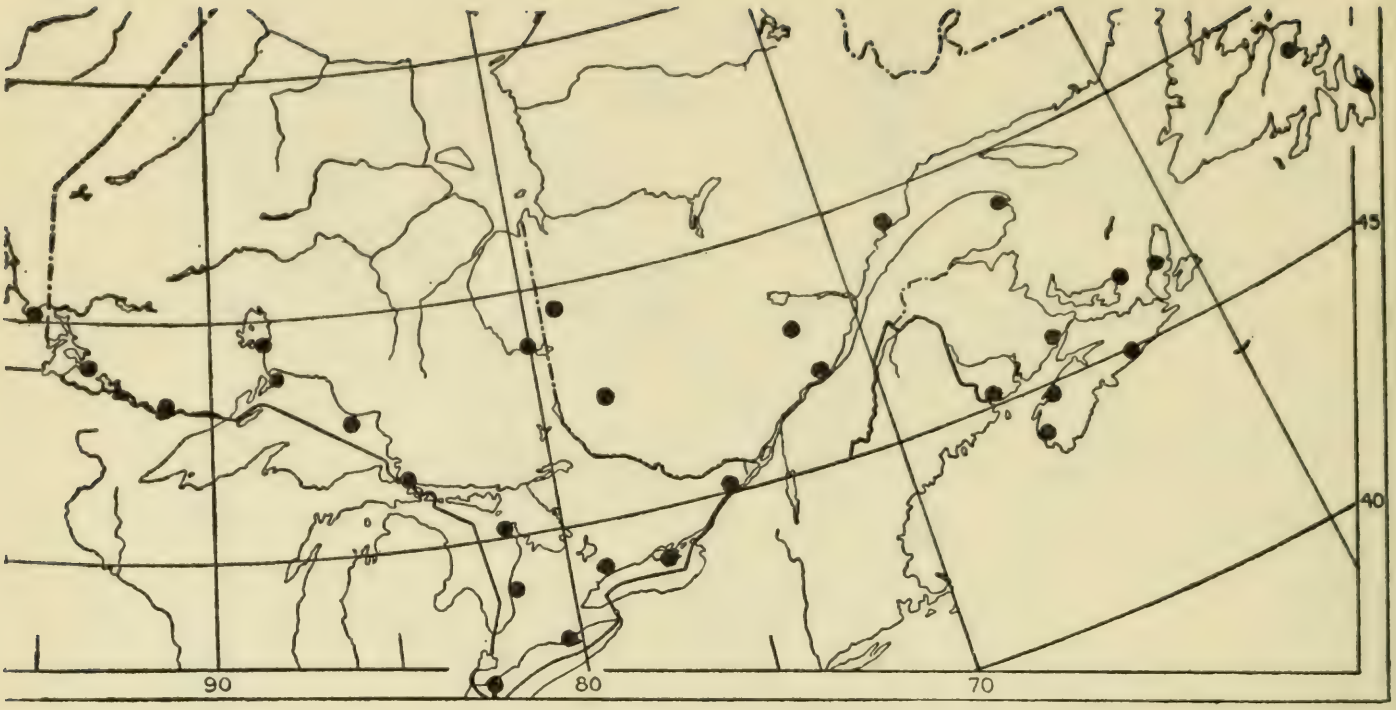
Map 33. *Rana catesbeiana*

FAMILY RANIDAE

Rana catesbeiana Shaw
BULLFROG

Range in Canada: From Ontario east of Lake Superior to Nova Scotia; northward in Ontario to southern Algoma District and Lake Timagami, and in Quebec to Montmorency County. Introduced into British Columbia. Map 33.

Canadian locality records: BRITISH COLUMBIA. MAINLAND. *New Westminster Dist.*, Burnaby Lake, Deer Lake (PC: G. C. Carl). NEW BRUNSWICK. *Charlotte Co.*, Chamcook Lake (ROM). Southcentral New Brunswick (Bleakney, 1958, pp. 65, 90). *York Co.*, Brockway (ROM). NOVA SCOTIA. Annapolis Valley, *Cumberland Co.*, Oxford (Bleakney, 1958, pp. 65, 90). *Halifax Co.*, Grand Lake (ROM). ONTARIO. *Algoma Dist.*, Stoney Lake near Heyden (Williamson, 1907, p. 136). *Bruce Co.*, Lucknow (ROM). *Durham Co.*, Darlington Twp. (Allin, 1940, p. 111). *Essex Co.*, Point Pelee (Logier, 1925, p. 92). *Glengarry Co.*, Lake St. Francis (Toner and de St. Remy, 1941, p. 10). *Manitoulin Dist.*, Honora (Williams, 1942, p. 93). *Muskoka Dist.*, Bala (ROM). *Nipissing Dist.*, Lake Timagami (ROM). *Norfolk Co.*, Long Point (Logier, 1931, p. 232). *Prince Edward Co.*, Hallowell (ROM). *Renfrew Co.*, Petawawa (ROM). *Sudbury Dist.*, Sudbury (ROM). *Wentworth Co.*, Hamilton (Brown, 1928, p. 126). QUEBEC. *Megantic Co.*, Black Lake (Trapido and Clausen, 1938, p. 121). *Montmorency Co.*, St. Joachim (Provancher, 1875, p. 19). *Nicolet Co.*, Becancour (Provancher, 1875, p. 19). *Terrebone Co.*, St. Jovite (Grant, 1941, p. 153). *Two Mountains Co.*, St. Augustine (Provancher, 1875, p. 19).

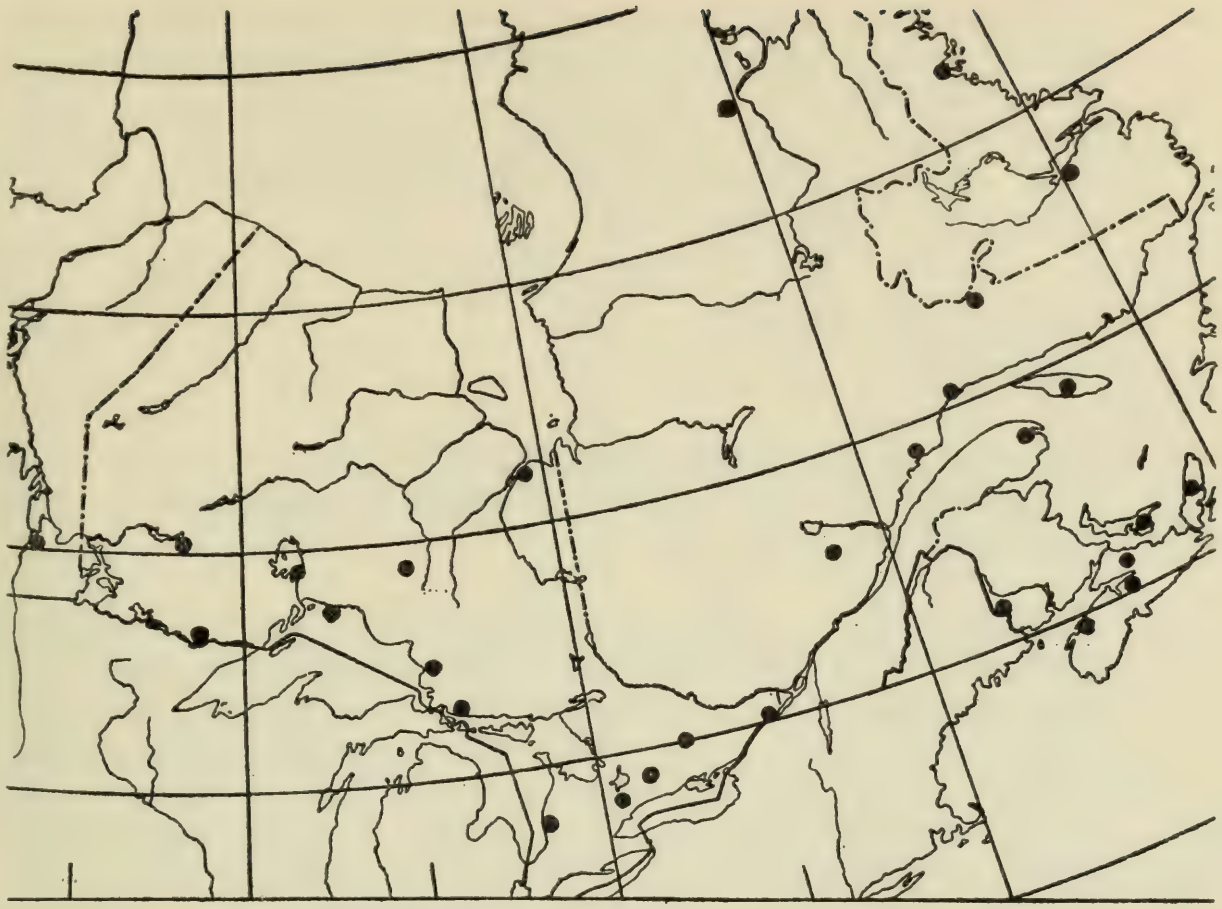


Map 34. *Rana clamitans melanota*

Rana clamitans melanota Rafinesque
GREEN FROG

Range in Canada: From Rainy River District, Ontario eastward to Cape Breton Island, Nova Scotia; northward in Ontario and Quebec to about 50° Latitude. Introduced into Newfoundland and British Columbia. Map 34.

Canadian locality records: BRITISH COLUMBIA. *Yale Dist.*, Hope (Carl, 1949, p. 140). MANITOBA: Caddy Lake, George Lake, Pointe du Bois (PC: R. W. Sutton). NEW BRUNSWICK. *Albert Co.*, Albert (ROM). *Charlotte Co.*, Wheaton Lake (ROM). NEWFOUNDLAND. Glovertown, at mouth of Terra Nova River; St. John's (10 mi. south of) (ROM). NOVA SCOTIA. Annapolis Valley (Bleakney, 1958, pp. 65, 91). *Halifax Co.*, Moser River (ROM). *Inverness Co.*, Lake Ainslie (ROM). *Yarmouth Co.*, Wedgeport (ROM). ONTARIO. *Algoma Dist.*, Maclennan (ROM). *Bruce Co.*, Johnstons Harbour, Lucknow (ROM). *Cochrane Dist.*, Lake Abitibi (ROM). *Durham Co.*, Bowmanville (ROM). *Essex Co.*, Point Pelee (Logier, 1925, p. 92). *Glengarry Co.*, Bainsville (ROM). *Norfolk Co.*, Long Point (Adams and Clark, 1958, p. 8). Turkey Point (ROM). *Prince Edward Co.*, Picton (ROM). *Rainy River Dist.*, Off Lake (ROM). Quetico Park (Lindeborg, 1950, p. 86). *Thunder Bay Dist.*, Lake Nipigon, Michipicoten Island, St. Ignace Island (ROM). PRINCE EDWARD ISLAND. *Kings Co.*, Souris (ROM). QUEBEC. *Gaspe Co.*, Gaspe (Trapido and Clausen, 1938, p. 121). *Laurentides National Park* (ROM). *Pontiac Co.*, near Wolf Lake (Grant, 1941, p. 151). *Quebec Co.*, Quebec (Cope, 1899, p. 423). *Saguenay Co.*, Godbout (ROM). *Timiskaming Dist.*, Noranda (ROM).



Map 35. *Rana septentrionalis*

Rana septentrionalis Baird
MINK FROG

Range in Canada: From eastern Manitoba to Cape Breton Island, Nova Scotia; northward in Ontario to James Bay, in Quebec to Lake Aigneau, and in Labrador to Okak; throughout the Maritime Provinces; Anticosti Island. Map 35.

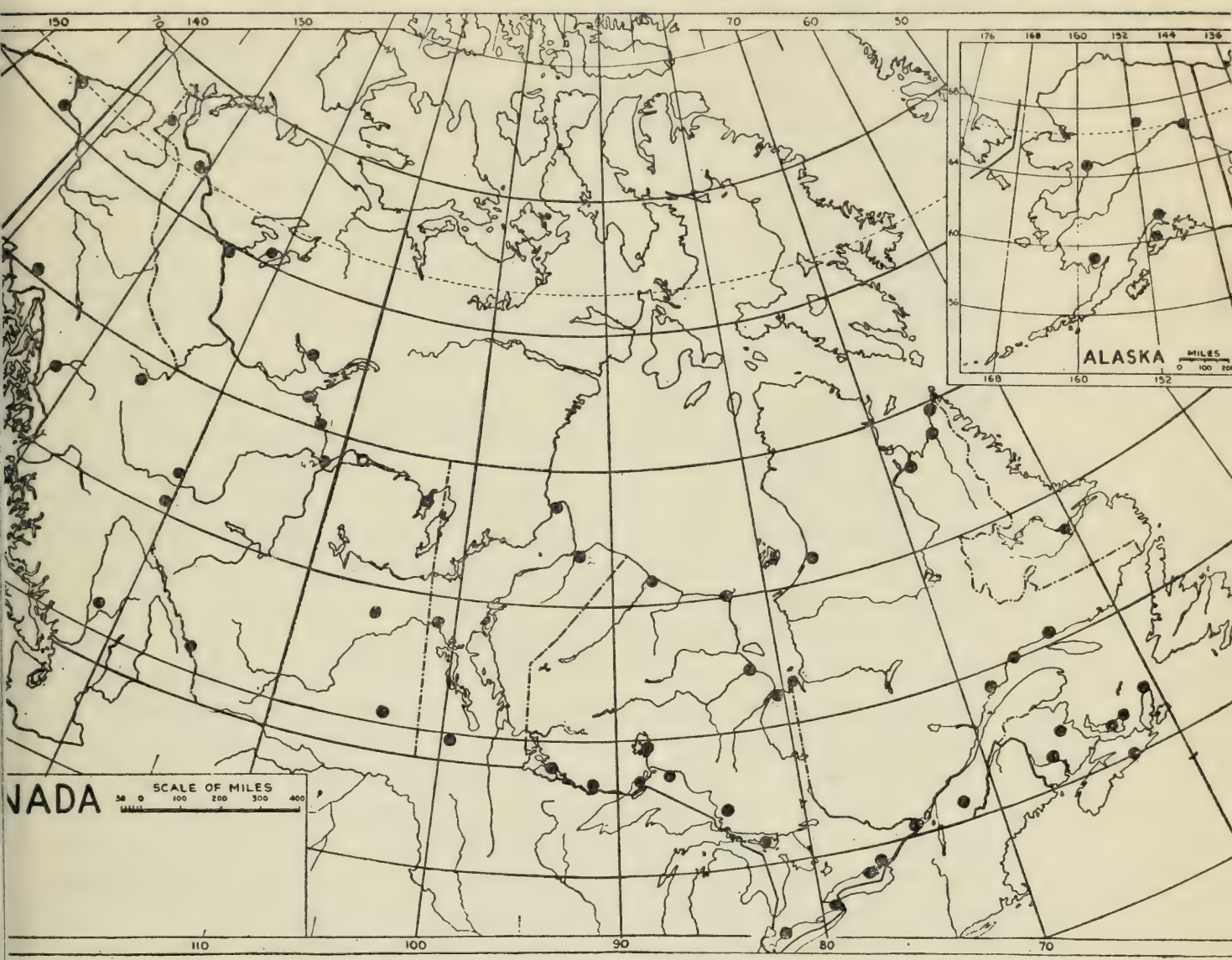
Canadian locality records: ANTICOSTI ISLAND (Bleakney, 1954, p. 166); (NMC). LABRADOR. Lake Melville at Etagaulet Bay (Backus, 1954, p. 227). Okak (Packard, 1866, p. 272). MANITOBA. Selkirk Settlement (Cope, 1889, p. 419). NEW BRUNSWICK. Northern and Southcentral New Brunswick (Bleakney, 1958, pp. 65, 92). *York Co.*, Canterbury (ROM). NOVA SCOTIA. Annapolis Valley (Bleakney, 1958, pp. 65, 92). *Cumberland Co.*, Oxford (Bleakney, 1958, p. 65). *Hants Co.* (Bleakney, 1952, p. 126). *Inverness Co.*, Upper Margaree River (ROM). ONTARIO. *Algoma Dist.*, Desbarats (ROM). *Bruce Co.*, Lucknow (ROM). *Cochrane Dist.*, McCoig Twp., Moose Factory (ROM). *Glengarry Co.*, Lake St. Francis (ROM). *Kenora Dist.*, Sioux Lookout (ROM). *Lennox and Addington Co.*, Buckshot Lake (ROM). *Peterborough Co.*, Pigeon Lake (ROM). *Rainy River Dist.*, Quetico Park (Lindeborg, 1950, p. 86). *Thunder Bay Dist.*, Lake Nipigon, Slate Island (ROM). *York Co.*, Kelly Lake in King Twp. (ROM).

PRINCE EDWARD ISLAND. *Kings Co.*, Dundee (Fowler, 1915, p. 518). QUEBEC. *Gaspe Peninsula* (Cox, 1899b, p. 194). *Laurentides National Park* (Vladykov, 1941, p. 84). *Saguenay Co.*, Godbout (ROM). Seven Islands (Bleakney, 1954, p. 166); (NMC). *Timiskaming Dist.*, Noranda (ROM). *Ungava Dist.*, Mile 134 (Bleakney, 1954, p. 166); (NMC). Lake Aigneau (PC: S. Bleakney); (NMC).

Rana sylvatica Le Conte
WOOD FROG

Range in Canada and Alaska: Nearly all of the land area south of the Arctic Circle. Northward to 60° Latitude east of 110° Longitude, and to north of the Arctic Circle west of it. Map 36.

Canadian and Alaskan locality records: ALASKA. Bettles, Circle (Loomis and Jones, 1953, p. 149). Cook Inlet (Osgood, 1901b, p. 57). Fort Yukon (Cope, 1889, p. 437). Lake Aleknagik (Cope, 1886, p. 520). Lake Tustemena (Ferguson, 1956, p. 132). Nulato River (Cope, 1889, p. 437). Yakutat (ROM). ALBERTA. Athabaska Lake (ROM). Banff (Boulenger, 1920, p. 457). BRITISH COLUMBIA. *Cassiar Dist.*, Telegraph Creek (Patch, 1939, p. 235). Toad River, 10 mi. S. and 21 mi. E. of Muncho Lake (Loomis and Jones, 1953, p. 149). *Lillooet Dist.*, Clinton (Carl, 1943, p. 51). *Peace River Dist.*, Fort St. John (Loomis and Jones, 1953, p. 149).Tupper Creek (Cowan, 1939, p. 92). LABRADOR. Hamilton River, Mud Lake, Northwest River (Backus, 1954, p. 227). MANITOBA. Carberry, Fort Churchill, The Pas (ROM). York Factory (Preble, 1902, p. 133). NEW BRUNSWICK. *Northumberland Co.*, McNamee (ROM). *York Co.*, Fredericton (ROM). NORTHWEST TERRITORIES. *Mackenzie Dist.*, Fort Good Hope (old), Fort Norman, Fort Resolution (Preble, 1908, p. 501). Fort Smith (Boulenger, 1882b, p. 45). Great Bear Lake (Gunther, 1858a, p. 17). Mackenzie Delta, Yellowknife (ROM). NOVA SCOTIA. Throughout the province (Bleakney, 1952, p. 127). Annapolis Valley (Bleakney, 1958, pp. 65, 93). *Halifax Co.*, Moser River (ROM). *Inverness Co.*, Upper Margaree River (ROM). *Victoria Co.*, Cape North (Patch, 1939, p. 235). ONTARIO. *Algoma Dist.*, Searchmount (Williamson, 1907, p. 136). *Cochrane Dist.*, Fort Albany, Moosonee (ROM). *Frontenac Co.*, Kingston (Toner and de St. Remy, 1941, p. 13). *Glengarry Co.*, Bainsville (ROM). *Kent Co.*, Rondeau Park (ROM). *Lincoln Co.*, St. Catharines (Yarrow, 1882, p. 186). *Manitoulin Dist.*, Mindemoya (ROM). *Patricia Dist.*, Akimiski Island (PC: F. R. Gehlbach) Cape Henrietta Maria, Fort Severn (ROM). *Prince Edward Co.*, Hallowell, Picton (ROM). *Rainy River Dist.*, Off Lake (ROM). Quetico Park (Lindeborg, 1950, p. 86). *Thunder Bay Dist.*, Lake Nipigon, Silver Islet, Slate Island (ROM). PRINCE EDWARD ISLAND. *Kings Co.*, Souris (ROM). *Queens Co.*, Charlottetown (Fowler, 1915, p. 518). QUEBEC. *Abitibi Dist.*, Point Comfort (ROM). *Saguenay Co.*, Godbout (ROM). Mingan Island (PC: A. Loveridge); (MCZ). Seven Islands Bay (Speck, 1925, p.



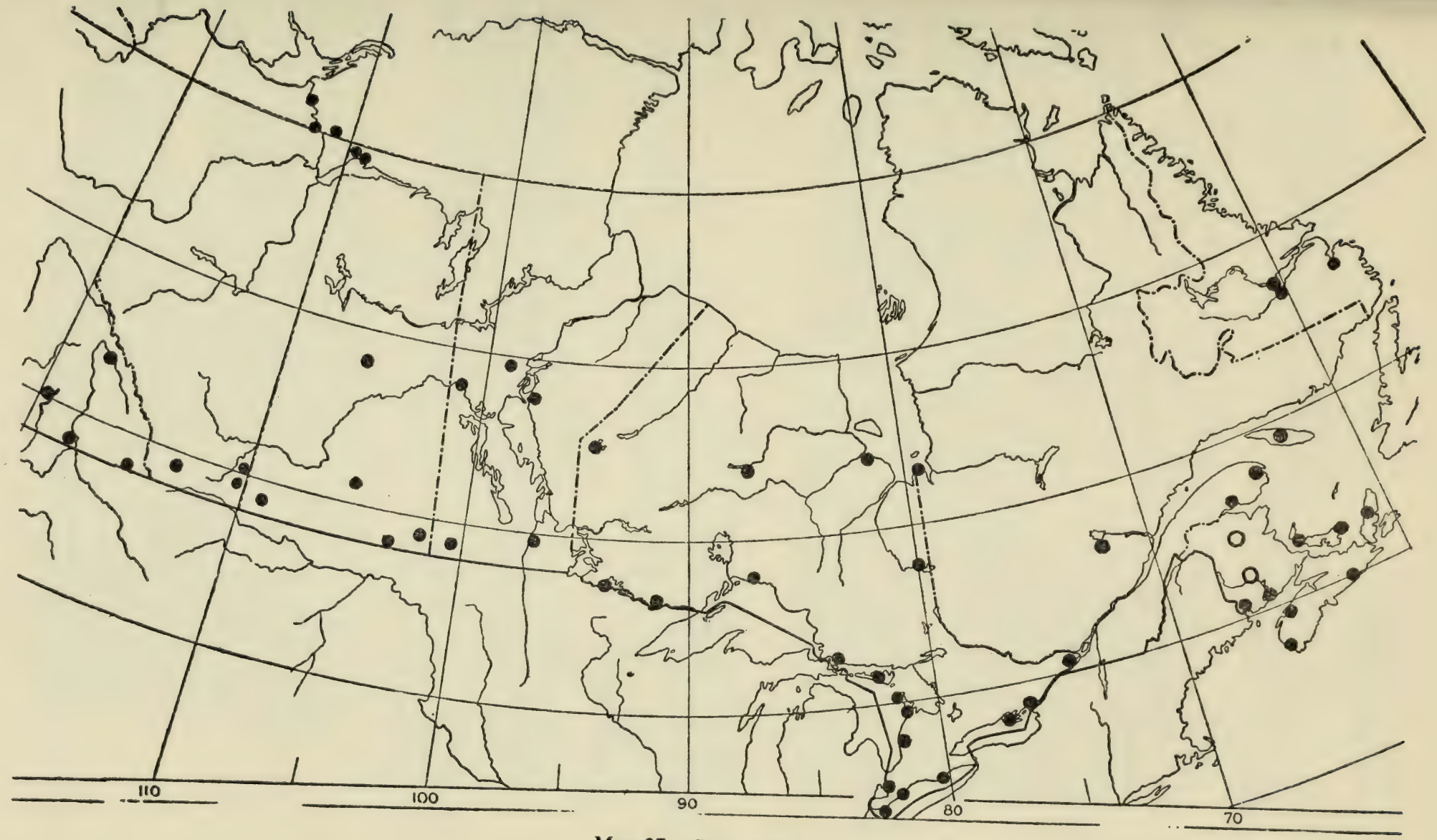
Map 36. *Rana sylvatica*

138). *Sherbrook Co.*, Sherbrook (Trapido and Clausen, 1938, p. 122). *Ungava Dist.*, Fort Chimo (Dunbar, 1949, pp. 9–10); (NMC). George River (Hildebrand, 1949, p. 168). Natsitok (Hantzsch, 1931, p. 89). SASKATCHEWAN. Athabasca Lake (PC: W. H. Beck); (USM). Indian Head, Wallaston Lake (PC: W. H. Beck); (USM). Waskesiu Lake (ROM). YUKON. Dezadeash Lake (Loomis and Jones, 1953, p. 149).

Rana pipiens Schreber
LEOPARD FROG

Range in Canada: From Nova Scotia and Paradise River, Labrador, westward through the Maritimes, Quebec, Ontario and the Prairie Provinces to southeastern British Columbia; northward to Great Slave Lake, Mackenzie District. Map 37.

Canadian locality records: ALBERTA. Elkwater Lake, Lethbridge (ROM). Medicine Hat (PC: A. Loveridge); (MCZ). ANTICOSTI ISLAND. (PC: A. Loveridge); (MCZ). BRITISH COLUMBIA. *Kootenay Dist.*, Bush Lake, Creston Lake, Loon Lake (Carl, 1949, p. 140). *Similkameen Dist.*, Osoyoos Lake (Carl, 1949, p. 140). LABRADOR. *Lake Melville Dist.*, Grand River (Bleakney, 1954, p. 166); (NMC). Mud Lake, Mouth of Hamilton River, Rabbit Island in Goose Bay (Backus, 1954, p. 227). Paradise River (Austin, 1932, p. 9). MANITOBA. Norway House (Preble, 1902, p. 133). Souris, The Pas, Waboden (ROM). Winnipeg (Seton, 1918, p. 80). NEW BRUNSWICK. North and Southcentral New Brunswick (Bleakney, 1958, pp. 65, 94). *St. John Co.*, St. John (PC: A. Loveridge); (MCZ). *York Co.*, Canterbury (ROM). NORTHWEST TERRITORIES. *Mackenzie Dist.*, Fort Smith (ROM). Taltson River at 111° 45′ Long., 61° Lat., Tazin Highlands (Harper, 1931a, p. 69). NOVA SCOTIA. Annapolis Valley (Bleakney, 1958, pp. 65, 94). *Halifax Co.*, Moser River (ROM). *Inverness Co.*, Upper Margaree River (ROM). *Yarmouth Co.*, Wedgeport (ROM). ONTARIO. *Algoma Dist.*, Maclennan (ROM). *Bruce Co.*, Johnstons Harbour, Lucknow, Red Bay (ROM). *Cochrane Dist.*, Fort Albany, Lake Abitibi (ROM). *Essex Co.*, Peelee Island (Jones, 1912, p. 103); (ROM). Point Pelee (Logier, 1925, p. 92, sc). *Frontenac Co.*, Kingston (Klugh, 1922a, p. 14). *Glengarry Co.*, Lancaster (Toner and de St. Remy, 1941, p. 12). *Kent Co.*, Lake St. Clair, Rondeau Park (ROM). *Manitoulin Dist.*, Mindemoya (ROM). *Norfolk Co.*, Long Point (ROM). *Patricia Dist.*, Favourable Lake, Lake Attawapiskat (ROM). *Prince Edward Co.*, Hallowell (ROM). *Rainy River Dist.*, Emo (ROM). Quetico Park (Lindeborg, 1950, p. 86). *Thunder Bay Dist.*, Lake Nipigon, Schreiber (ROM). PRINCE EDWARD ISLAND. *Kings Co.*, Souris (ROM). *Prince Co.*, Lot 16 (ROM). QUEBEC. *Abitibi Dist.*, Point Comfort (ROM). *Bonaventure Co.*, Cascapedia (Moore and Moore, 1939, p. 104). *Gaspe Peninsula* (Cox, 1899a, p. 152). *Lake St. John Co.*, Val Jalbert (Trapido and Clausen, 1938, p. 121). *Temiscouta Co.*, Riviere du Loup (Trapido and Clausen, 1938, p. 121). SASKATCHEWAN. Carlyle Lake, Cypress Lake (ROM). Estevan (PC: R. W. Nero). Moose Jaw (Schmidt, 1938, p. 377). Tazin Highlands (Harper, 1931b, p. 29). Waskesiu Lake (ROM).



Map 37. *Rana pipiens*

Rana palustris Le Conte
PICKEREL FROG

Range in Canada:* From Cape Breton Island, Nova Scotia, through the Maritimes, southern Quebec, southern and central Ontario to Lake Superior and the St. Clair River. Map 38.

Canadian locality records: NEW BRUNSWICK. *St. John Co.*, St. John (PC: A. Loveridge); (MCZ). *York Co.*, Fredericton (ROM). NOVA SCOTIA. Annapolis Valley (Bleakney, 1958, pp. 65, 95). *Cumberland Co.*, Oxford (Bleakney, 1958, pp. 65, 95). *Halifax Co.*, Moser River (ROM). *Inverness Co.*, Upper Margaree River (ROM). *Yarmouth Co.* (PC: A. Loveridge); (MCZ). ONTARIO. *Algonma Dist.*, Heyden (Williamson, 1907, p. 136). *Bruce Co.*, Bruce Peninsula, Lucknow (ROM). *Frontenac Co.*, Kingston (Toner and de St. Remy, 1941, p. 10). *Glengarry Co.*, Alexandria (ROM). *Lincoln Co.*, St. Catharines (ROM). *Norfolk Co.*, Turkey Point (ROM). *Prince Edward Co.*, Cressy (Logier, 1941, p. 98). *Sudbury Dist.*, Chapleau (Meek and Clark, 1902, p. 139). *York Co.*, Toronto (ROM). PRINCE EDWARD ISLAND. (Cox, 1899b, p. 194). QUEBEC. *Bonaventure Co.*, Cascapedia (Moore and Moore, 1939, p. 104). *Gaspe Co.*, Grand Pabos River (Cox, 1899b, p. 194). *Gatineau Co.*, Alcove (ROM).

Rana aurora aurora Baird and Girard
NORTHERN RED-LEGGED FROG

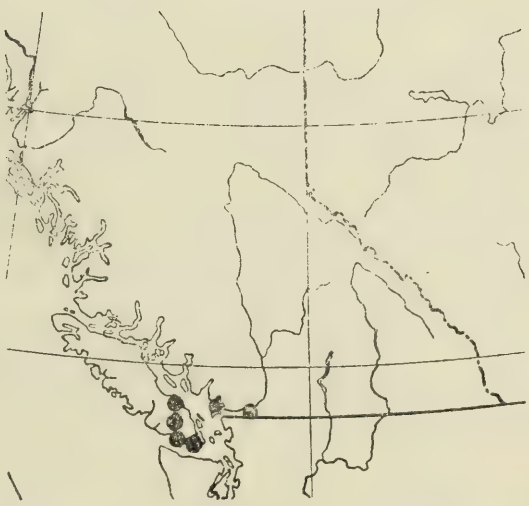
Range in Canada: Southwestern British Columbia, including Vancouver Island. Map 39.

Canadian locality records: BRITISH COLUMBIA. MAINLAND. *New Westminster Dist.*, Vancouver (ROM). Vedder Crossing (Kermode, 1928, p. E19). VANCOUVER ISLAND. *Cowichan Lake Dist.*, Cowichan Lake (Cowan, 1937, p. K19); (PMBC). *Goldstream Dist.*, Goldstream (ROM). *Nanaimo Dist.*, Nanaimo (ROM). *Renfrew Dist.*, Port Renfrew (Cowan, 1937, p. K19); (PMBC).

*There are two reports of this frog from the James Bay-Hudson Bay area, which we cited in our check list (1955, p. 41), with the reservation of a possible error of provenance. Cope (1889, p. 409) recorded three specimens as having been collected by C. Drexler at "James Bay, N.B." Bleakney (1958, p. 13) points out that since there is no James Bay in New Brunswick, and Drexler did in fact collect in the James Bay-Hudson Bay region, Cope's report should be referred to that area, and is disposed to accept it. The other report was by Preble (1902, p. 133) from the mouth of the Nelson River, Manitoba.

Since these localities are respectively some 300 and 700 miles outside the range of known collecting sites, and our museum field parties working in the James Bay-Hudson Bay area, and in the Patricia District, during several summers failed to collect the species, we feel that until additional specimens are collected from these sites they are better not included in the statement of range.

Map 38. *Rana palustris*



Map 39. *Rana aurora aurora*

Map 40. *Rana pretiosa pretiosa*

Rana pretiosa pretiosa Baird and Girard
WESTERN SPOTTED FROG

Range in Canada and Alaska: From the Stikine River, Alaska, and Lake Bennett, British Columbia, southward to the international border, and eastward into central Saskatchewan. Map 40.

Canadian and Alaskan locality records: ALASKA. Sergeif Island (Slevin, 1928, p. 135). Length of Stikine River in Alaska (Swarth, 1936, p. 77). ALBERTA. Banff (ROM). Jasper (Patch, 1929, p. 138); (NMC). Pipestone Creek, Waterton National Park (ROM). BRITISH COLUMBIA. *Cassiar Dist.*, Driftwood Valley (Stanwell-Fletcher, 1940, p. 137). Lake Bennett (Carl, 1943, p. 50). Seton Creek, 1937, p. K20); (PMBC). Telegraph Creek (Storer, 1925, p. 272). *Coast Dist., Range 3*, Chezacut Lake (ROM). *Kamloops Dist.*, Lytton (ROM). *Kootenay Dist.*, Kootenay National Park (Ferguson, 1956, p. 132); (OSCMNH). *New Westminster Dist.*, Sumas Prairie (Boulenger, 1882, pp. 43–4). *Osoyoos Dist.*, Summerland (ROM). *Similkameen Dist.*, Christina Lake (ROM). SASKATCHEWAN. *Cypress Lake, Maple Creek, Waskesiu Lake (ROM).

*The Cypress Lake and Maple Creek specimens are tadpoles. As far as we know, the tadpole of *Rana pretiosa* is still undescribed, so our identification is provisional, based upon the following facts: These tadpoles are not those of any eastern Canadian ranid. They were compared with *Rana pretiosa* tadpoles collected in British Columbia in 1928, from which we noted no remarkable difference except for their larger size. The labial teeth are in sufficiently close agreement with those of the British Columbia tadpoles. No eastern ranid was seen at the Saskatchewan sites by the collector, but two unfamiliar frogs, which escaped, were seen.

Class Reptilia

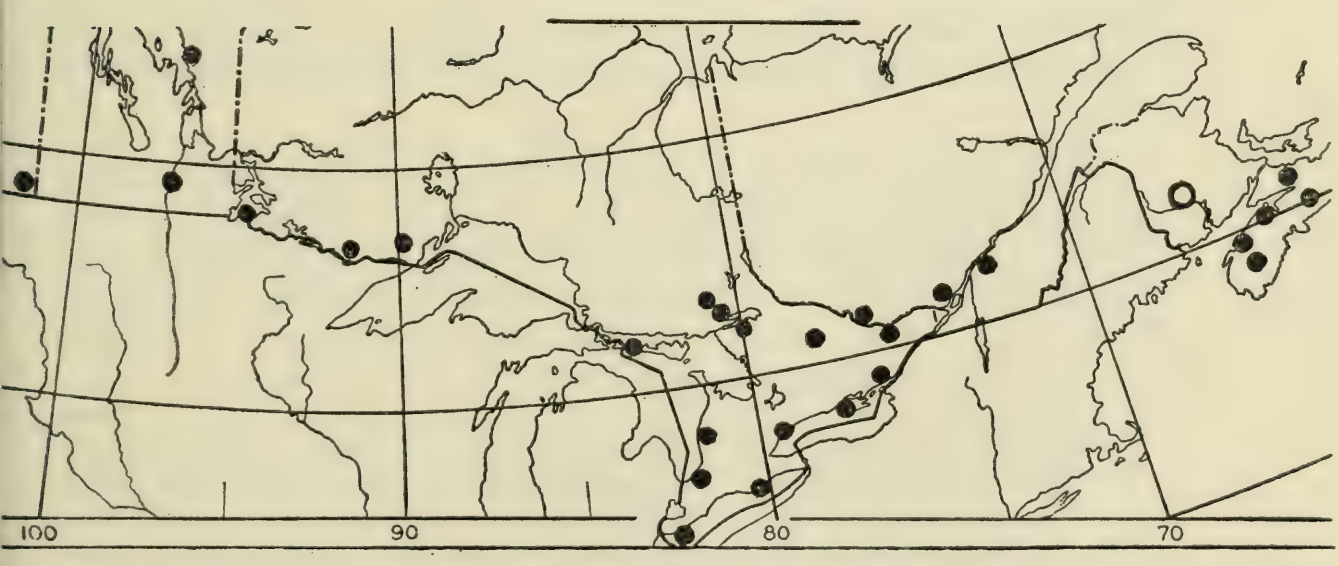
Order Chelonia

FAMILY CHELYDRIDAE

Chelydra serpentina serpentina Linnaeus
COMMON SNAPPING TURTLE

Range in Canada: From Nova Scotia, exclusive of Cape Breton Island, through southern Canada to southeastern Saskatchewan; northward in Manitoba to Berens River, and to about 46° Latitude in the Maritimes. Map 41.

Canadian locality records: MANITOBA. Berens River (Norris-Elye, 1949, p. 145). Winnipeg (ROM). NEW BRUNSWICK. Southcentral New Brunswick (Bleakney, 1958, pp. 66, 96). NOVA SCOTIA. *Annapolis Co.*, Annapolis Valley (Bleakney, 1952, p. 127). *Cumberland Co.*, Oxford (Bleakney, 1958, pp. 66, 96). Musquodoboit and Gay River valleys; southcentral Nova Scotia (Bleakney, 1958, pp. 66, 96). *Queens Co.*, Lake Resignol (Jones, 1865, p. 117). ONTARIO. *Carleton Co.*, Ottawa (Patch, 1918, p. 53). *Essex Co.*, Pelee Island and Point Pelee (ROM). *Huron Co.*, Wingham (ROM). *Kenora Dist.*, Lake-of-the-Woods (Boulenger, 1889, p. 23). *Lambton Co.*, Port Franks (ROM). *Leeds Co.*, Gananoque (ROM). *Manitoulin Dist.*, Cockburn Island (PC: W. B. Scott). *Nipissing Dist.*, Algonquin Park (ROM). *Norfolk Co.*, Long Point (ROM). *Parry Sound Dist.*, Franks Bay



Map 41. *Chelydra serpentina serpentina*

(ROM). *Prince Edward Co.*, Hallowell (ROM). *Rainy River Dist.*, Quetico Park (Lindeborg, 1950, p. 86). *Sudbury Dist.*, Milnet (PC: J. H. Crysdale, photographs). Nepewassi Lake south of Hagar (ROM). *Thunder Bay Dist.*, Adrian Twp. (Logier, 1949, p. 47). Sunshine (PC: A. E. Allin). *York Co.*, Toronto (ROM). QUEBEC. Lake St. John (PC: R. Bernard). *Nicolet Co.*, Lac St. Paul a Becancour (Provancher, 1874, p. 297). *Pontiac Co.*, Norway Bay (Patch, 1925, p. 95). *Vaudreuil Co.*, Vaudreuil (PC: Frere Alexander). SASKATCHEWAN. Oxbow (PC: R. W. Nero). Souris River (Criddle, 1919, p. 135).

FAMILY KINOSTERNIDAE

Sternotherus odoratus Latreille
STINKPOT

Range in Canada: Southern Ontario, northward to about 46° Latitude. Map 42.

Canadian locality records: ONTARIO. *Essex Co.*, Point Pelee (Patch, 1919, p. 61). *Frontenac Co.*, Arden (ROM). *Kent Co.*, Lake St. Clair (Garnier, 1881, p. 37). Rondeau Bay (ROM). *Lambton Co.*, Ipperwash Beach (PC: J. C. Higgins). *Leeds Co.*, Gananoque Lake (ROM). *Manitoulin Dist.*, McGregor Bay (ROM). *Muskoka Dist.*, Go Home Bay (ROM). *Oxford Co.* (PC: R. V. Lindsay). *Parry Sound Dist.*, Parry Sound (ROM). *Peterborough Co.*, Lovesick Lake (ROM). Stony Lake (PC: J. Land). *Prince Edward Co.*, Wellington (ROM). *Wentworth Co.*, Hamilton (Brown, 1928, p. 127).

FAMILY EMYDIDAE

Clemmys guttata Schneider
SPOTTED TURTLE

Range in Canada: Apparently restricted to southwestern Ontario from the Lake Erie counties northward to Bruce Peninsula and Parry Sound District. Map 43.

Canadian locality records:* ONTARIO. *Bruce Co.*, Oliphant (PC: W. J. Dowkes). *Essex Co.*, Point Pelee (ROM). *Grey Co.*, Durham (PC: L. H. Beamer). Owen Sound (PC: W. J. Dowkes). *Kent Co.*, Rondeau Park (ROM). *Muskoka Dist.*, Go-Home Bay (Logier, 1939, p. 50). *Norfolk Co.*, Turkey Point (ROM). *Parry Sound Dist.*, Franklin Island (ROM). *Welland Co.*, Fort Erie (Wright, 1918, p. 56).

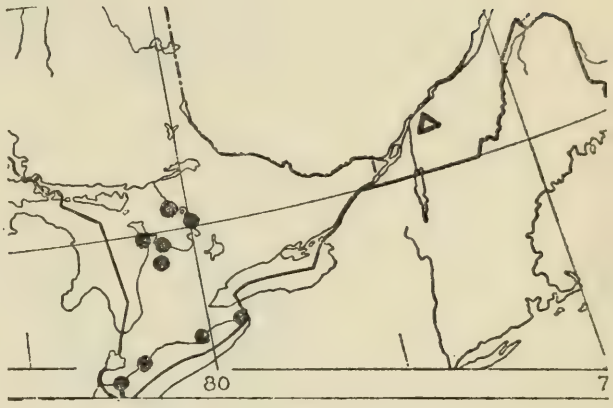
*Provancher (1874, p. 295) reported this turtle from Nicolet, Nicolet County in the Province of Quebec. An alleged report by the same author from Quebec County (Logier and Toner, 1955, p. 45) was in error (Bleakney, 1958, pp. 14, 15). We know of no other reports of this turtle from the Province of Quebec since 1874. The Nicolet locality is marked on the map (43) by an open triangle.

Clemmys marmorata marmorata Baird and Girard
NORTHWESTERN POND TURTLE

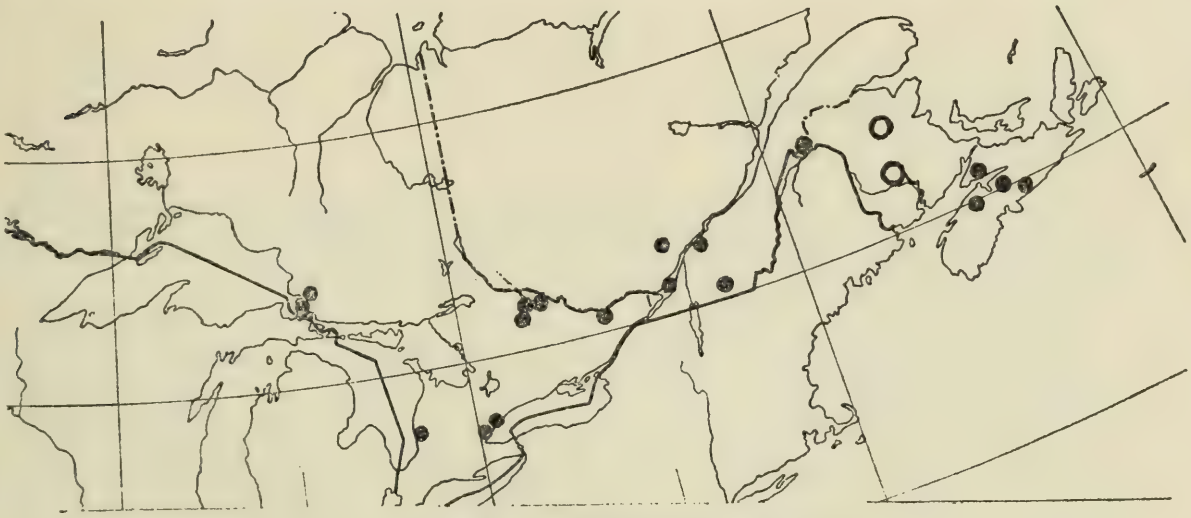
Range in Canada: Extreme southwestern British Columbia.

Canadian locality records: BRITISH COLUMBIA. *New Westminster Dist.*, Vancouver, at Burnaby Lake (PC: K. Racey), and Jericho Golf Links (Carl, 1951, p. 46).

Map 42. *Sternotherus odoratus*



Map 43. *Clemmys guttata*



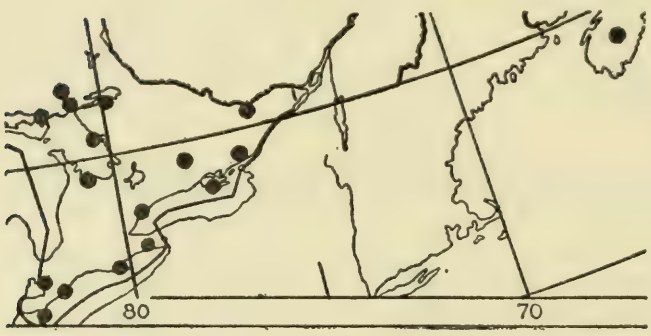
Map 44. *Clemmys insculpta*

Clemmys insculpta Le Conte
WOOD TURTLE

Range in Canada: From Algoma District, Ontario to Nova Scotia, south of Latitude 48°. Not known from Prince Edward Island or Cape Breton Island. Map 44.

Canadian locality records: NEW BRUNSWICK. Southcentral and northern New Brunswick (Bleakney, 1958, pp. 66, 99). *Madawaska Co.*, Baker Brook (ROM). NOVA SCOTIA. *Cumberland*, *Halifax*, *Hants*, and *Kings* counties (Bleakney, 1952, p. 127); (NSMS). ONTARIO. *Algoma Dist.*, Goulais River (ROM). Harmony River (PC: J. L. Price). Searchmount (Williamson, 1907, p. 138). *Carleton Co.*, Ottawa (PC: C. L. Patch). *Halton Co.*, Bronte

Creek near Tansley (ROM). *Huron Co.*, Clinton (ROM). Holmesville (Le Ray, 1935, p. 109). *Nipissing Dist.*, Algonquin Park: Canisbay Twp., Guthrie Twp. (PC: G. E. Tayler). Stratton Twp., White Twp. (PC: H. F. Helmsley). *Norfolk Co.*, Long Point (ROM). *Renfrew Co.*, Chalk River and Petawawa Military Reserve (ROM). *York Co.*, Thistletown (ROM). Toronto: Grenadier Pond (PC: Mrs. H. Constable and T. B. Kurata, SS), Humber River (PC: D. Van Vliet, SS). QUEBEC. *Jacques Cartier Co.*, Lachine (PC: Frere Alexander). *Megantic Co.*, Black Lake (PC: C. L. Patch). *Nicolet Co.*, St. Gertrude (Provancher, 1874, p. 296). *Sherbrook Co.*, Sherbrook (PC: C. L. Patch).



Map 45. *Emys blandingi*

Emys blandingi Holbrook
BLANDING'S TURTLE

Range in Canada: Southern Ontario from Manitoulin District and Essex County to Ottawa; Southern Nova Scotia. We know of none from Quebec, New Brunswick or Prince Edward Island. Map 45.

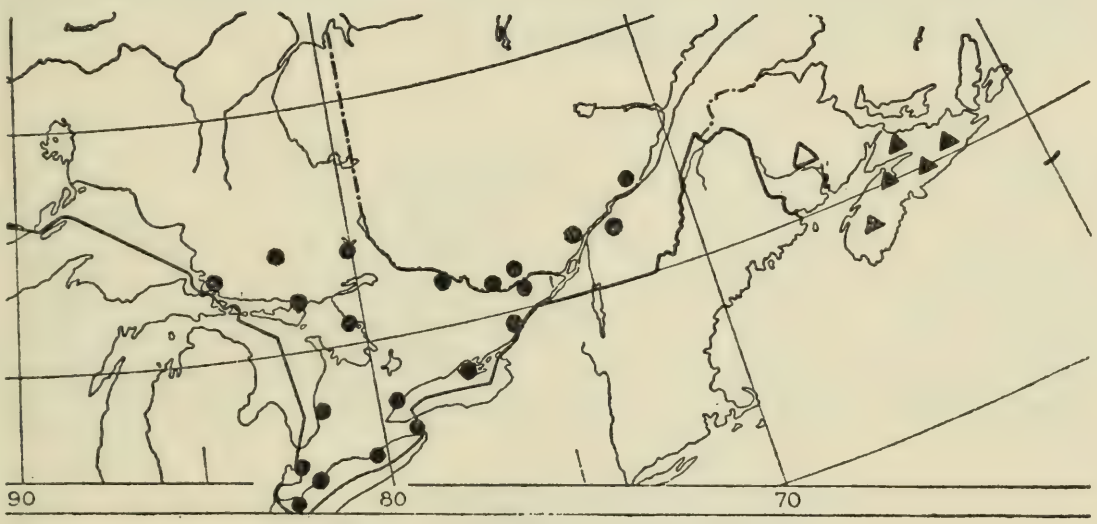
Canadian locality records: NOVA SCOTIA. *Queens Co.*, Lake Kejimkujik (Bleakney, 1958, pp. 17, 100). ONTARIO. *Carleton Co.*, Dunrobin (PC: R. Firth). Ottawa (Patch, 1937, p. 4). *Essex Co.*, Pelee Island (Jones, 1912, p. 103). Point Pelee (ROM). *Grey Co.*, Meaford (PC: L. H. Beamer). *Haldimand Co.*, Port Maitland (Brown, 1927, p. 185). *Hastings Co.*, Millbridge (ROM). *Kent Co.*, Mitchells Bay (SS). Rondeau Park (ROM). *Leeds Co.*, Gananoque Lake (ROM). *Manitoulin Dist.*, La Cloche Island (ROM). *Nipissing Dist.*, Algonquin Park: Canisbay Twp. (PC: G. E. Tayler); (APM). *Norfolk Co.*, Long Point, Turkey Point (ROM). *Parry Sound Dist.*, Franklin Island, Franks Bay (ROM). *Peterborough Co.*, Galway Twp. (ROM). *Prince Edward Co.*, Hallowell (ROM). *Renfrew Co.*, Petawawa Military Reserve (ROM). *Sudbury Dist.*, Bigwood (ROM). Coniston (PC: V. Moyer and V. Pugliese—2 specimens). *York Co.*, Toronto region (ROM).

Graptemys geographica Le Sueur
MAP TURTLE

Range in Canada: Waters of lakes Erie, Ontario, and Huron, and Georgian Bay, also certain rivers and small lakes in the Lower Lakes drainage system. Map. 46.

Canadian locality records: *Carleton Co.*, Ottawa (Patch, 1937, p. 4). ***Essex Co.***, Point Pelee (ROM). *Frontenac Co.*, Cranberry Lake, Dog Lake (Toner, 1936, p. 236). *Kent Co.*, Mitchells Bay (SS). Rondeau Park (ROM). ***Leeds Co.***, Charleston Lake (Toner, 1936, p. 236). Gananoque Lake (ROM). *Muskoka Dist.*, Go Home Bay (ROM). *Norfolk Co.*, Long Point (ROM). *Northumberland Co.*, Rice Lake (ROM). *Prince Edward Co.*, Bay of Quinte (ROM). *Wellington Co.*, Guelph (Patch, 1925, p. 95). *Wentworth Co.*, Hamilton Bay (Brown, 1928, p. 127). QUEBEC. *Laval Co.*, Genevieve (PC: Frere Alexander). *Pontiac Co.*, Norway Bay (Patch, 1925, p. 95).

Map 46. *Graptemys geographica*



Map 47. *Chrysemys picta picta* ▲
Chrysemys picta marginata ●

Chrysemys picta picta Schneider
EASTERN PAINTED TURTLE

Range in Canada: Nova Scotia and southcentral New Brunswick. Not known from Cape Breton Island or Prince Edward Island. Map 47.

Canadian locality records: NEW BRUNSWICK. Southcentral New Brunswick (Bleakney, 1958, pp. 66, 102). NOVA SCOTIA. Annapolis Valley (Bleakney, 1952, p. 127). *Cumberland Co.*, Oxford (Bleakney, 1958, pp. 66, 102). *Guysborough Co.*, West River St. Mary's (Bleakney, 1952, p. 127). *Halifax Co.*, Gay River, Musquodobit Valley (Bleakney, 1952, p. 127). *Kings Co.*, Wolfville (PC: C. L. Patch); (NMC).

Chrysemys picta marginata Agassiz
MIDLAND PAINTED TURTLE

Range in Canada: All of southern Ontario from the Lower Lakes northward to southern Algoma District, Biscotasing in Sudbury District, and Lake Timagami, eastward into western Quebec. Map 47.

Canadian locality records: ONTARIO. *Algoma Dist.*, Maclennan (ROM). *Carleton Co.*, Ottawa (Patch, 1918, p. 53). *Essex Co.*, Pelee Island, Point Pelee (ROM). *Huron Co.*, Seaforth (ROM). *Kent Co.*, Mitchells Bay, Rondeau Park (ROM). *Leeds Co.*, Gananoque (ROM). *Manitoulin Dist.*, La Cloche Island (Williams, 1942, p. 93). *Nipissing Dist.*, Lake Timagami (ROM). *Norfolk Co.*, Long Point (ROM). *Parry Sound Dist.*, Franklin Island (ROM). *Prince Edward Co.*, Hallowell (ROM). *Renfrew Co.*, Petawawa (ROM). *Sudbury Dist.*, Biscotasing (ROM). *Welland Co.*, Niagara Falls (ROM). *York Co.*, Toronto region (ROM). QUEBEC. *Gatineau Co.*, Masham Mills (ROM). *Hochelaga Co.*, Montreal (PC: J. B. Falls). *Laval Co.*, Ste. Rose (PC: Frere Alexander). *Nicolet Co.*, Becancour, Nicolet (Provancher, 1874, p. 295). *Pontiac Co.*, Norway Bay (Patch, 1925b, p. 96). *Quebec Co.*, Quebec (Provancher, 1874, p. 295).

Map 48. *Chrysemys picta belli*

Chrysemys picta belli Gray
WESTERN PAINTED TURTLE

Range in Canada: From Lake Nipigon, Ontario, westward through southern Canada, south of Latitude 52°, to Vancouver Island. Map 48.

Canadian locality records: BRITISH COLUMBIA. MAINLAND. *Kamloops Dist.*, Genier Lakes (Carl, 1951, p. 48). Monte Lake (Cowan, 1937, p. K23). Shuswap Lake (Carl, 1951, p. 48). *Kootenay Dist.*, Loon Lake

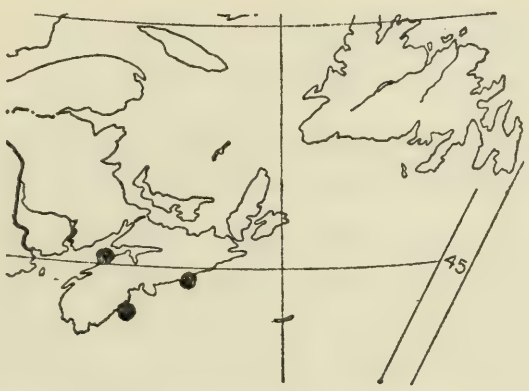
near New Gate, Summit Lake (Cowan, 1937, p. K23). *New Westminster Dist.*, Pender Harbour (Cowan, 1937, p. K23); (PMBC). *Similkameen Dist.*, Grand Forks (Thacker, 1924, p. 164). Green Lake (ROM). Osoyoos Lake, Vaseux Lake (Cowan, 1937, p. K23). *Yale Dist.*, Hope (released) (Storer, 1937, p. 66). COASTAL ISLANDS. *Texada Island Dist.*, Texada Island (Priest Lake) (Carl, 1951, p. 48). VANCOUVER ISLAND. *Alberni Dist.*, Alberni (Storer, 1932, p. 9). Patterson Lake (Cowan, 1937, p. K23). MANITOBA. Austin (Seton, 1918, p. 81). Bloodvein region of Lake Winnipeg (PC: S. Waller). Boissevain, Carberry (Seton, 1918, p. 81). Rice Lake at Onah (Criddle, 1919, p. 135). Riding Mountain, Winnipeg (Seton, 1918, p. 81). ONTARIO. *Kenora Dist.*, Whitefish Bay (PC: *W. H. Bennett*). Rainy *River Dist.*, Quetico Park (Lindeborg, 1950, p. 86). *Thunder Bay Dist.*, Blackwater River and Orient Bay at Lake Nipigon, Whitefish Lake (ROM). SASKATCHEWAN. Coranach Dam (PC: R. W. Nero). Gouverneur (Bird, 1959, p. 125). Regina (PC: R. W. Nero).

FAMILY CHELONIDAE

Chelonia mydas agassizi Bocourt
PACIFIC GREEN TURTLE

Range in Canada: Southwestern coast of Vancouver Island, British Columbia.

Canadian locality records: BRITISH COLUMBIA. VANCOUVER ISLAND. *Clayoquot Dist.*, Spring Cove, west side of entrance to Uculet Inlet (Carl, 1955, p. B77). Only recorded specimen.



Map 49. *Leptochelys olivacea kempi*

Lepidochelys olivacea kempi Garman
ATLANTIC RIDLEY

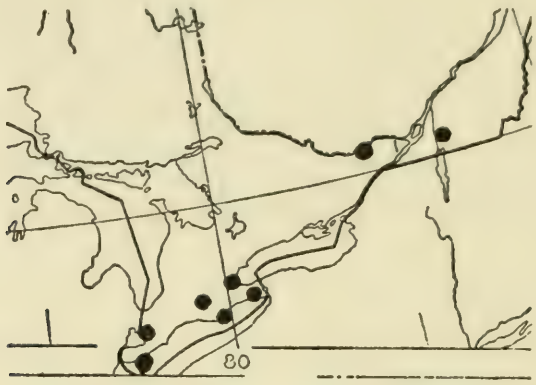
Range in Canada: Nova Scotia coast as a rare northward straggler. Map 49.

Canadian locality records: NOVA SCOTIA. *Annapolis Co.*, in Bay of Fundy near Margaretsville (Bleakney, 1955, p. 137); (NSMS). *Halifax Co.*, Spry Harbour (Bleakney, 1955, p. 137); (NSMS). *Lunenburg Co.*, Lahave Island (PC: C. L. Patch); (NMC).

Caretta caretta caretta Linnaeus
ATLANTIC LOGGERHEAD TURTLE

Range in Canada: Coastal waters south of 44° Latitude.

Canadian locality records: Grand Banks at 43° 24′ N, 51° 15′ W. A single winter record trawled from 100 fathoms in January 1953 (Squires, 1955, p. 68).



Map 50. *Tryonyx ferox spinifera*

FAMILY TRIONYCHIDAE

Trionyx ferox spinifera Le Sueur
EASTERN SPINY SOFT-SHELLED TURTLE

Range in Canada: Southern Ontario from lakes St. Clair and Erie to western Quebec at the Richelieu River and Lake Champlain. Map 50.

Canadian locality records: ONTARIO. *Carleton Co.*,* Ottawa (PC: C. L. Patch); (NMC). *Essex Co.*, Point Pelee (Logier, 1939, p. 56). *Haldimand Co.*, Dunnville (Logier, 1939, p. 56; SR). *Kent Co.*, Lake St. Clair (Garnier, 1881, p. 37). *Norfolk Co.*, Long Point (ROM). *Oxford Co.*, Beachville (Logier, 1939, p. 56). *Wentworth Co.*, Hamilton Bay (SR). QUEBEC. *Iberville Co.*, Richelieu River at Iberville (PC: Frere Alexander).

*Two specimens from the old Fisheries Museum, labelled "Ottawa." There may be some question of provenance here, so the record should be accepted with reserve unless or until supported by further evidence.

FAMILY DERMOCHELIDAE

Dermochelys coriacea coriacea Linnaeus
ATLANTIC LEATHERBACK TURTLE

Range in Canada: Coastal waters northward to southern Newfoundland; occasional.

Canadian locality records: NEWFOUNDLAND. *Trinity Bay*, Dunfield (Squires, 1954, p. 68). NOVA SCOTIA. *Halifax Co.*, Halifax (Piers, 1890, p. 470).

Dermochelys coriacea schlegeli Garman
PACIFIC LEATHERBACK TURTLE

Range in Canada: Coastal waters of Vancouver Island, British Columbia, northward to Nootka Sound; occasional.

Canadian locality records: BRITISH COLUMBIA. VANCOUVER ISLAND. *Nootka Dist.*, near Nootka Sound (PC: G. C. Carl); (PMBC).

Order Sauria

FAMILY IGUANIDAE

Phrynosoma douglassi douglassi Bell
PIGMY HORNED LIZARD

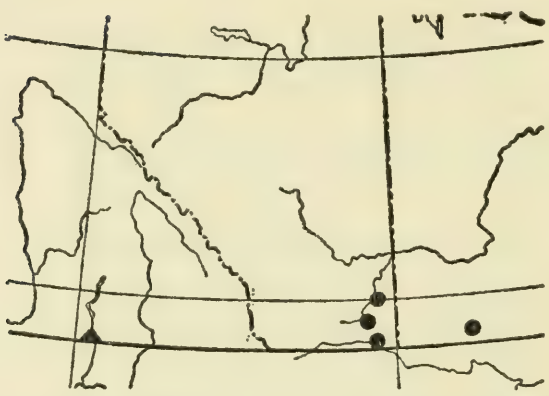
Range in Canada: Extreme southern British Columbia, central part. Map 51.

Canadian locality records: BRITISH COLUMBIA. *Similkameen Dist.*, Osoyoos (PC: C. G. Carl); (PMBC).

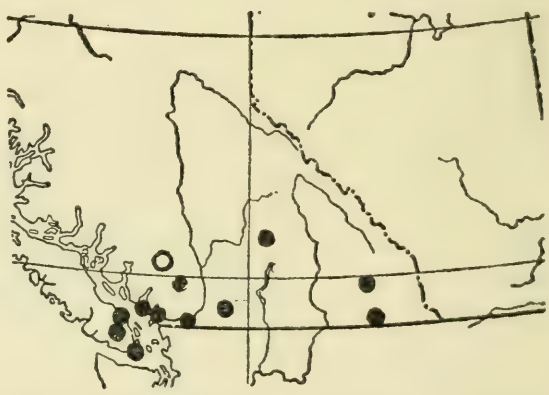
Phrynosoma douglassi brevirostre Girard
EASTERN SHORT-HORNED LIZARD

Range in Canada: Southwestern Alberta northward to about 50° Latitude. Map 51.

Canadian locality records: ALBERTA. Manyberries, Medicine Hat, One-four (ROM). SASKATCHEWAN. Gergovia (PC: S. Bleakney); (NMC). Rosefield (PC: R. W. Nero).



Map 51. *Phrynosoma douglassi douglassi* ▲
Phrynosoma douglassi brevirostre ●



Map 52. *Gerrhonotus coeruleus principis*

FAMILY ANGUIDAE

Gerrhonotus coeruleus principis Baird and Girard
NORTHERN ALLIGATOR LIZARD

Range in Canada: Southern British Columbia including Vancouver Island. Map 52.

Canadian locality records: BRITISH COLUMBIA. MAINLAND. *Kamloops Dist.*, Sicamous (Cope, 1900, p. 531). *Kootenay Dist.*, Creston (Cowan, 1937, p. K20); (PMBC). Kaslo (Van Denburgh, 1922, p. 438). *Lillooet–New Westminster Dists.*, Lillooet River Valley (Van Denburgh, 1922, p. 438). *New Westminster Dist.*, Cultus Lake (ROM). North Vancouver (Cowan, 1937, p. K20). Passage Island in Howe Sound (PC: G. C. Carl); (PMBC). *Yale Dist.*, Granite Creek (ROM). VANCOUVER ISLAND. *Cowichan Lake Dist.*, Cowichan Lake (PC: G. C. Carl); (PMBC). *Esquimalt Dist.*, Langford Station (ROM). *Nanaimo Dist.*, Nanaimo (ROM).

FAMILY SCINCIDAE

Eumeces fasciatus Linnaeus
FIVE-LINED SKINK

Range in Canada: Southern Ontario from Lake Erie northward into Parry Sound District; from Essex County eastward to Frontenac County. Apparently missing the north shore of Lake Ontario by about twenty to forty miles. Map 53.

Canadian locality records: ONTARIO. *Essex Co.*, Arner (Patch, 1934b, p. 50); (NMC). Point Pelee (ROM). *Frontenac Co.*, Arden (ROM). Mountain Grove (Patch, 1934b, p. 50); (NMC). *Haliburton Co.*, Kinmount (ROM). *Huron Co.*, Grand Bend (ROM). *Kent Co.*, Rondeau Park (ROM). *Lambton*

Map 53. *Eumeces fasciatus* ●
Eumeces septentrionalis septentrionalis ■
Eumeces skiltonianus ▲

Co., Sarnia (Patch, 1934b, p. 50); (NMC). *Lennox and Addington Co.*, Skootamatta Lake (PC: S. Bleakney); (NMC). *Lincoln Co.*, St. Catharines (ROM). *Muskoka Dist.*, Go Home Bay, Gravenhurst (ROM). *Parry Sound Dist.*, Gordon Bay (ROM), Parry Sound (SS). *Peterborough Co.*, Peterborough (Patch, 1934b, p. 50); (NMC). *Simcoe Co.*, Tossorontio Twp. (ROM).

Eumeces septentrionalis septentrionalis Baird
NORTHERN PRAIRIE SKINK

Range in Canada: Southern Manitoba. Map 53.

Canadian locality records: MANITOBA. Brandon (Mills, 1948, p. 9). Cypress River (PC: R. W. Sutton). Onah (Patch, 1934b, p. 51); (NMC). Treesbank (ROM).

Eumeces skiltonianus Baird and Girard
WESTERN SKINK

Range in Canada: Southern British Columbia east of the Cascade Mountains. Map 53.

Canadian locality records: BRITISH COLUMBIA. *Kootenay Dist.*, Edgewood (Kermode, 1922, p. M12). Kootenay River, west branch (Taylor, 1935, p. 415). Nelson (Cowan, 1937, p. K21); (PMBC). Sirdar (Cowan, 1937, p. K21). *Similkameen Dist.*, Vaseux Lake (Patch, 1923b, pp. 50, 51).

Order Serpentes

FAMILY BOIDAE

Charina bottae bottae Blainville
PACIFIC RUBBER BOA

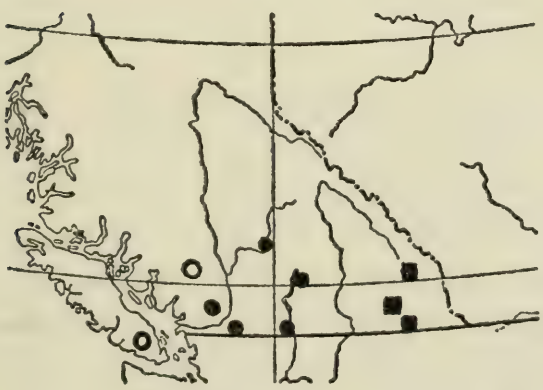
Range in Canada: Southwestern British Columbia west of the Cascade Mountains; northward to Rayleigh, Kamloops District; perhaps occurring on Vancouver Island. Map 54.

Canadian locality records: BRITISH COLUMBIA. MAINLAND. *Kamloops Dist.*, Rayleigh (Carl, 1951, p. 27). *Lillooet–New Westminster Dists.*, Lillooet River Valley (Van Denburgh, 1922, p. 462). *New Westminster Dist.*, Chilliwack (Lord, 1866, p. 305). Harrison Lake (Cowan, 1937, p. K21); (PMBC). *Osoyoos Dist.*, Okanagan Landing, Vernon (Logier, 1932, p. 325). Winfield (ROM). *Similkameen Dist.*, Keremeos (ROM). VANCOUVER ISLAND. No precise locality cited (Van Denburgh, 1922, p. 642). This indefinite report, on the authority of Lord, is in need of substantiation.

Charina bottae utahensis Van Denburgh
ROCKY MOUNTAIN RUBBER BOA

Range in Canada: Southeastern British Columbia. Map 54.

Canadian locality records: BRITISH COLUMBIA. *Kootenay Dist.*, Canal Flats (Carl, 1951, p. 27). Creston, Nelson (Cowan, 1937, p. K21); (PMBC).



Map 54. *Charina bottae bottae* ●
Charina bottae utahensis ■

Natrix septemvittata Say
QUEEN SNAKE

Range in Canada: Southwestern Ontario. Map 55.

Canadian locality records: ONTARIO. *Brant Co.*, Paris (ROM). *Bruce Co.*, Lake Scugog near Johnston's Harbour (Le Ray, 1928, p. 42). *Huron Co.*, Bayfield (PC: T. D. Patterson). *Kent Co.*, Chatham, Mitchells Bay (Le Ray, 1928, p. 42). *Middlesex Co.*, Kilworth Bridge (PC: W. E. Saunders). London (ROM). *Waterloo Co.*, Galt (PC: W. J. Le Ray).

Natrix sipedon sipedon Linnaeus
NORTHERN WATER SNAKE

Range in Canada: Southern Ontario from the Lower Lakes northward to Batchawana Bay, Algoma District, southern Sudbury District and Lake Nipissing; eastward to Laval County, Quebec. Map 56.

Canadian locality records: ONTARIO. *Algoma Dist.*, Batchawana Bay to St. Marys River (Agassiz, 1850, p. 382). Cedar Lake north of Bruce Mines (ROM). *Bruce Co.*, Tobermory (ROM). *Essex Co.*, Point Pelee (ROM). *Grey Co.*, Owen Sound (ROM). *Kent Co.*, Mitchells Bay (SS). *Leeds Co.*, Gananoque (ROM). *Lincoln Co.*, St. Catharines (ROM). *Manitoulin Dist.*, West Bay (ROM). *Nipissing Dist.*, Algonquin Park: Costello Lake, Little Island Lake, Opeongo Lake (PC: A. Gatti). *Norfolk Co.*, Long Point (ROM). *Parry Sound Dist.*, Franks Bay, Parry Sound (ROM). *Prince Edward Co.*, Cressy (ROM). *Renfrew Co.*, Petawawa (ROM). *Sudbury Dist.*, Ministic Lake, Whitefish Falls (ROM). *York Co.*, Toronto (ROM). QUEBEC. *Gatineau Co.*, Masham Mills (ROM). *Laval Co.*, Ste. Rose (PC: Frere Alexander). *Pontiac Co.*, Calumet Island (PC: G. M. Bureau). *Terrebone Co.*, St. Jerome (PC: Frere Alexander).

Natrix sipedon insularum Conant and Clay
LAKE ERIE WATER SNAKE

Range in Canada: Pelee Island, and possibly Middle Island, Essex County, Ontario.

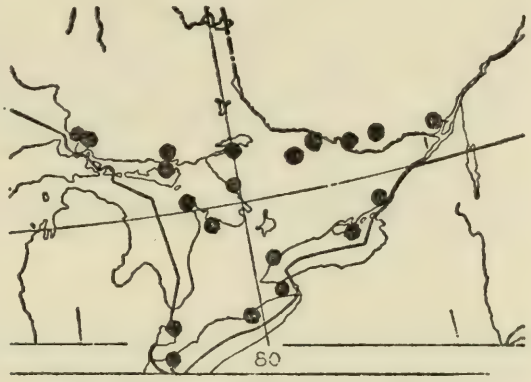
Canadian locality records: ONTARIO. *Essex Co.*, Pelee Island (ROM).

Storeria dekayi dekayi Holbrook NORTHERN BROWN SNAKE
Storeria dekayi wrightorum Trapido MIDLAND BROWN SNAKE

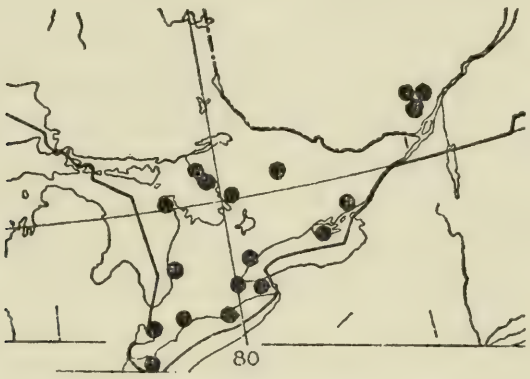
The Ontario population appears to be an intergrade one between these two races, and has been so mapped by Trapido (1944, p. 54). More than 20 per cent of our specimens from nine counties and districts, from Kent County eastward to Frontenac County, and northward to Parry Sound District, show various degrees of fusion across the vertebral line of some or many of the black dorsal spots.

Range in Canada: Southern Ontario from the Lower Lakes northward at least to Point au Baril, Parry Sound District; eastward to Joliette County, Quebec. Map 57.

Map 55. *Natrix septemvittata*



Map 56. *Natrix sipedon sipedon*



Map 57. *Storeria dekayi dekayi*

Canadian locality records: ONTARIO. *Bruce Co.*, Dorcas Bay, Whitechurch (ROM). *Elgin Co.*, Talbotville (ROM). *Essex Co.*, Pelee Island, Point Pelee (ROM). *Kent Co.*, Mitchells Bay (ROM). *Leeds Co.*, Gananoque (ROM). *Lincoln Co.*, St. Catharines (Cope, 1900, p. 1002). *Muskoka Dist.*, Lake Rosseau (ROM). *Nipissing Dist.*, Algonquin Park: Costello Lake (ROM). *Norfolk Co.*, Long Point (ROM). *Parry Sound Dist.*, Franklin Island, Nobel (ROM). Point au Baril (PC: A. Loveridge); (MCZ). *Prince Edward Co.*, Hallowell (ROM). *Wentworth Co.*, Hamilton (Brown, 1928, p. 126). *York Co.*, Toronto (ROM). QUEBEC. *Joliette Co.*, St. Alphonse, *Laval Co.*, Ste. Rose, *Terrebone Co.*, Val Morin (PC: Frere Alexander).

Map 58. *Storeria occipitomaculata occipitomaculata*

Storeria occipitomaculata occipitomaculata Storer
NORTHERN RED-BELLIED SNAKE

Range in Canada: Southern Canada from western Manitoba to Cape Breton Island, Nova Scotia. Map 58.

Canadian locality records: MANITOBA. Boissevain, Shoal Lake (Seton, 1918, p. 81). Dauphin, Oak Lake, Whitemouth (PC: R. W. Sutton), Treesbank (ROM). NEW BRUNSWICK. *Northern New Brunswick* (Bleakney, 1958, pp. 66, 110). *York Co.*, Fredericton (ROM). NOVA SCOTIA. Annapolis Valley (Bleakney, 1958, pp. 66, 110). *Halifax Co.*, Fairy Lake (Gilpin, 1878, p. 86). Moser River (ROM). *Inverness Co.*, Orangedale (ROM). *Southcentral Nova Scotia* (Bleakney, 1958, pp. 66, 110). *Yarmouth Co.*, (PC: A. Loveridge); (MCZ). ONTARIO. *Algoma Dist.*, Maclennan (ROM). *Bruce Co.*, Dorcas Bay, Kinloss (ROM). *Leeds Co.*, Black Rapids (Toner, 1935, p. 42). *Manitoulin Dist.*, Manitoulin Island (ROM). *Middlesex Co.*, Newbury (ROM). *Nipissing Dist.*, Algonquin Park: Costello Creek (ROM). North Bay, Lake Timagami (ROM). *Prince Edward Co.*, Cressy (Logier, 1941, p. 102). *Rainy River Dist.*, Quetico Park (ROM). *Sudbury Dist.*, Gogama (ROM). *Timiskaming Dist.*, New Liskeard (ROM). *Thunder Bay Dist.*, Silver Islet (PC: D. A. MacLulich). *York Co.*, Toronto (ROM). PRINCE EDWARD ISLAND. *Prince Co.*, Enmore (ROM). *Queens Co.*, Charlottetown (Mellish, 1878, p. 164). QUEBEC. *Argenteuil Co.*, St. Adolphe (PC: Frere Alexander). *Gatineau Co.*, Gracefield (ROM). *Joliette Co.*, St. Alphonse (PC: Frere Alexander). *Quebec Co.*, Quebec (ROM). *Sherbrook Co.*, Sherbrook (Trapido and Clausen, 1938, p. 124). SASKATCHEWAN. Crooked Lake (PC: S. Bleakney). Grenfell, Hazel Cliffe (PC: R. W. Nero). Langenburg (PC: W. H. Beck); (USM).

Map 59. *Thamnophis ordinoides*

Map 60. *Thamnophis elegans vagrans* ●
Thamnophis elegans nigrescens ▲

Thamnophis ordinoides Baird and Girard
NORTHWESTERN GARTER SNAKE

Range in Canada: Southern British Columbia including Vancouver Island; eastward to Pinewoods, Yale District and northward on the coast to Atnarko and Bella Coola, Coast District, Range 3. Map 59.

Canadian locality records: BRITISH COLUMBIA. MAINLAND. *Coast Dist., Range 3*, Atnarko (Patch, 1922, p. 78). Bella Coola (Carl, 1951, p. 35). *New Westminster Dist.*, Cultus Lake (ROM). Lund (Van Denburgh, 1922, p. 815). New Westminster (Cowan, 1937, p. K22). Pitt Meadows (ROM). Sumas Prairie (Boulenger, 1896, p. 201). Vancouver (ROM). Vedder Crossing (Kermode, 1932a, p. B13). *Yale Dist.*, below Pinewoods (Carl, Guiguet, and Hardy, 1952, p. 108). VANCOUVER ISLAND. *Clayoquot Dist.*, Tofino (ROM). *Nanaimo Dist.*, Nanaimo (ROM). *Nootka Dist.*, Tahsis Canal (Van Denburgh, 1922, p. 815). *Victoria Dist.*, Victoria (ROM).

Thamnophis elegans vagrans Baird and Girard
WANDERING GARTER SNAKE

Range in Canada: From the Pacific coast eastward to central Saskatchewan; northward in British Columbia into southern Peace River District. Map 60.

Canadian locality records: ALBERTA. Cabin Lake (SS). Carbondale (ROM). Jasper National Park (SS). Medicine Hat (PC: A. Loveridge); (MCZ). Red Deer (ROM). Red Horse Creek near Lundbreck (ROM). BRITISH COLUMBIA. *Cariboo Dist.*, Farwell Canyon (ROM). *Coast Dist., Range 3*, Stuie (Fitch, 1940, p. 24). *Kootenay Dist.*, Nelson (Ruthven, 1908, p. 140). *New Westminster Dist.*, Bowen Island (Cowan, 1937, p. K22). Cultus Lake (PC: G. C. Carl); (PMBC). Gambier Island (Cowan, 1937, p. K22). Vancouver (ROM). *Peace River Dist.*, Hudson Hope (ROM). *Similkameen Dist.*, Marron Lake (ROM). Penticton (Cowan, 1937, p. K22). SASKATCHEWAN. Gouldtown (PC: R. W. Nero) Herbert (ROM). Saskatchewan River Valley North of Stewart Valley (PC: R. W. Nero). Twelve Mile Lake (Sternberg, 1930, p. 149).

Thamnophis elegans nigrescens Johnson
PUGET SOUND GARTER SNAKE

Range in Canada: Vancouver Island, British Columbia. If present on the mainland,* its distribution there is uncertain. Map 60.

Canadian locality records: BRITISH COLUMBIA. VANCOUVER ISLAND. *Nanaimo Dist.*, Departure Bay, Nanaimo (ROM). *Victoria Dist.*, Glen Lake, Lake Hill, Victoria (PC: G. C. Carl); (PMBC).

Thamnophis radix haydeni Kennicot
WESTERN PLAINS GARTER SNAKE

Range in Canada: Southern parts of the Prairie provinces. Map 61.

Canadian locality records: ALBERTA. High River (Fowler, 1934, p. 140). Lethbridge, Louisiana Lakes, Richdale, Rose Lynn, Veteran, Waterton National Park (ROM). MANITOBA. Carberry (Seton, 1918, p. 81). High Bluff (ROM). Pembina River (Seton, 1918, p. 81). Souris (ROM). Treesbank (Criddle, 1937, p. 142). Turtle Mountain (Seton, 1918, p. 81). Winnipeg (ROM). SASKATCHEWAN. Dundurn (PC: W. H. Beck); (USM). Indian Head, Lumsden Beach, Melville (ROM). Moose Jaw (Boulenger, 1896, p. 211). Regina, Rush Lake (Ruthven, 1908, p. 77). Shaunavon (PC: R. W. Nero).

Thamnophis radix butleri Cope
BUTLER'S GARTER SNAKE

Range in Canada: Southwestern Ontario. Map 61.

Canadian locality records: ONTARIO. *Middlesex Co.*, Newbury (ROM). *Kent Co.*, Rondeau Park (PC: Mrs. F. C. Blanchard).

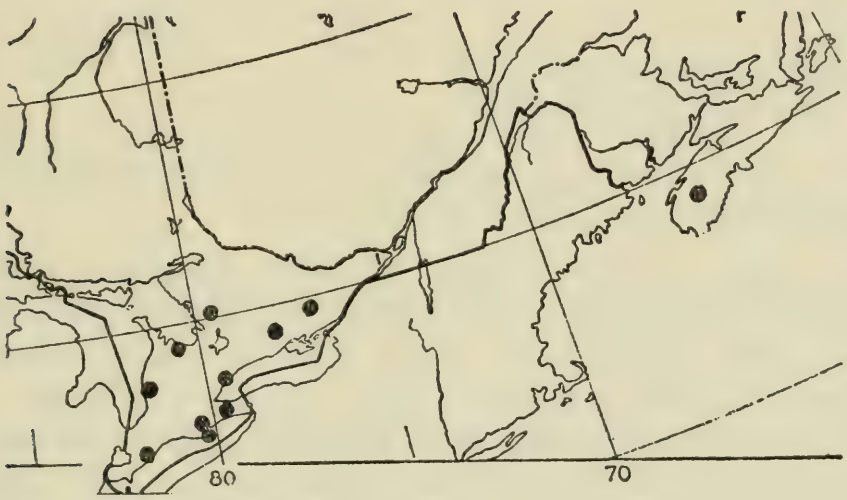
Thamnophis sauritus sauritus Linnaeus
EASTERN RIBBON SNAKE

Range in Canada: Southern Ontario northward into Muskoka District. Southern Nova Scotia. Map 62.

Canadian locality records: NOVA SCOTIA. *Queens Co.*, Caledonia and Kempt (PC: S. Bleakney); (NMC). ONTARIO. *Frontenac Co.*, Oconto (ROM). *Grey Co.*, Meaford (ROM). *Huron Co.*, Goderich (ROM). *Kent Co.*, Rondeau Park (ROM). *Lennox and Addington Co.*, Skootamatta Lake (PC: S. Bleakney); (NMC). *Lincoln Co.*, Warner (PC: S. Troyer). *Muskoka Dist.*, Torrence (PC: R. V. Lindsay). *Norfolk Co.*, Long Point (Adams and Clark, 1958, p. 9). St. Williams (SC). *Peterborough Co.*, Oak Lake (ROM). *York Co.*, Toronto (ROM).

*With regard to the range of this form, Johnson (1947, p. 160) states "*T. e. nigrescens* overlaps without intergradation about two thirds of the Washington state range [of *ordinoides*] and much of the British Columbia area." Mainland specimens of *elegans* in the ROM collection, even those from the coast at Vancouver, all appear to be of the form *vagrans*. Those from Vancouver Island (4 specimens) agree closely enough with Johnson's description of *nigrescens*.

Map 61. *Thamnophis radix haydeni* ●
Thamnophis butleri ▲



Map 62. *Thamnophis sauritus sauritus*

THE *Thamnophis sirtalis* COMPLEX

The large and variable population of garter snakes between the Ontario-Manitoba border and the Atlantic coast, long known as the Eastern Garter Snake, and referred to a single race, *Thamnophis sirtalis sirtalis*, is now considered to comprise two races, viz., *T. s. sirtalis* and *T. s. pallidula*. The former race occurs throughout Ontario into western Quebec, and the latter from there eastward to the Atlantic coast (Bleakney, 1959, pp. 52–6).

Provisionally, we are retaining the English name Eastern Garter Snake for *T. s. sirtalis*, and coining a new English name, Maritime Garter Snake, for *T. s. pallidula*.

The belt of intergradation between these races is shown stippled on Map 63, following Bleakney's map (op. cit., p. 53).

Thamnophis sirtalis sirtalis Linnaeus
EASTERN GARTER SNAKE

Range in Canada: From the Ontario-Manitoba border eastward into western Quebec; northward in Ontario to about 52° Latitude. Map 63.

Canadian locality records: ONTARIO. *Algoma Dist.*, Gros Cap (ROM). *Bruce Co.*, Dorcas Bay, Lucknow (ROM). *Cochrane Dist.*, Smoky Falls (ROM). *Essex Co.*, Pelee Island, Point Pelee (ROM). *Glengarry Co.*, Alexandria (ROM). *Kent Co.*, Mitchells Bay, Rondeau Park (ROM). *Kenora Dist.*, Malachi, Sioux Lookout (ROM). *Manitoulin Dist.*, Mindemoya (ROM). *Norfolk Co.*, Long Point (ROM). *Patricia Dist.*, Lake Attawapiskat (ROM). *Rainy River Dist.*, Rainy River (ROM). *Thunder Bay Dist.*, Macdiarmid, Michipicoten Island, Port Arthur, St. Ignace Island (ROM). *Welland Co.*, Wainfleet (ROM). *York Co.*, Toronto (ROM).

Thamnophis sirtalis pallidula Allen
MARITIME GARTER SNAKE

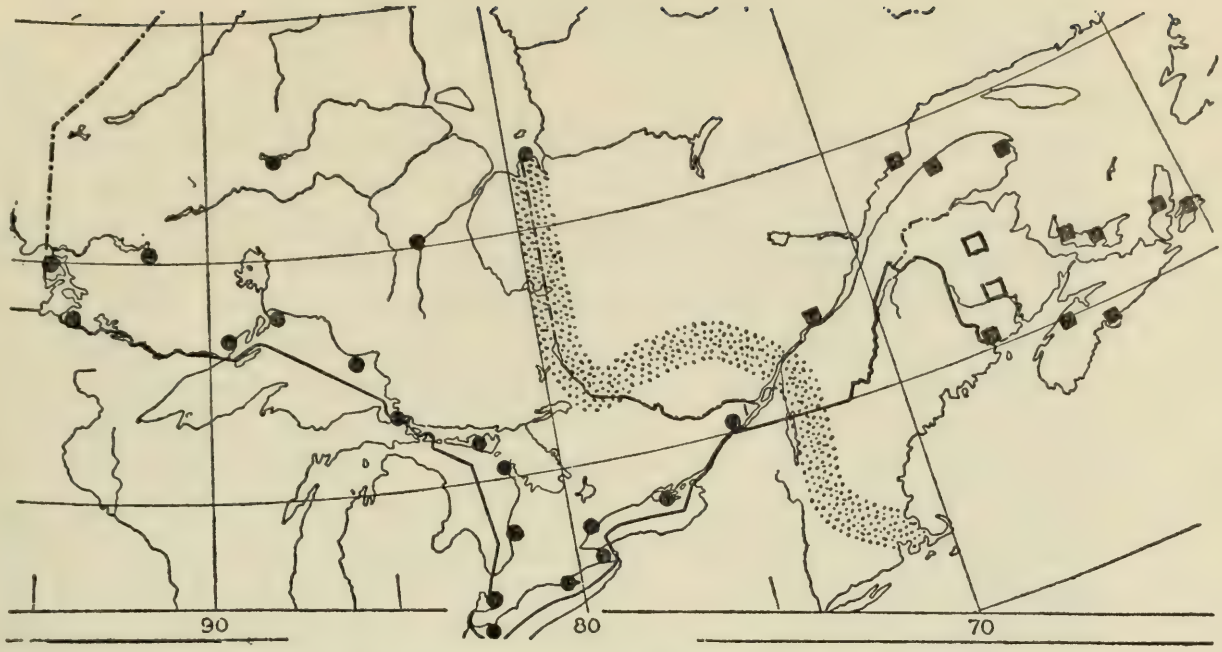
Range in Canada: From western Quebec to the Atlantic coast in Nova Scotia; northward in Quebec to Latitude 52° 50′. Map 63.

Canadian locality records: NEW BRUNSWICK. *Charlotte Co.*, Chamcook Lake (ROM). *Northern New Brunswick*, *Southcentral New Brunswick* (Bleakney, 1958, pp. 66, 112). NOVA SCOTIA. *Annapolis Co.*, Wilmot (Gilpin, 1878, p. 81). Annapolis Valley (Bleakney, 1958, pp. 66, 112). *Cape Breton Co.*, Sydney (ROM). *Cumberland Co.*, Oxford (Bleakney, 1958, pp. 66, 112). *Halifax Co.*, Grand Lake (ROM). *Inverness Co.*, Upper Margaree River (ROM). PRINCE EDWARD ISLAND. *Queens Co.*, Charlottetown (Mellish, 1878, p. 165). *Prince Co.*, Conway (ROM). QUEBEC. *Abitibi Dist.*, Point Comfort at James Bay (ROM). *Gaspe Co.*, (NMC). Ste. Anne des Monts River (Trapido and Clausen, 1938, p. 124). *Quebec Co.*, Quebec (ROM). *Saguenay Co.*, Godbout (ROM). *Ungava Dist.*, Opinica River at Latitude 52° 50′, Longitude 75° 50′ (PC: S. Bleakney).

Thamnophis sirtalis parietalis Say
RED-SIDED GARTER SNAKE

Range in Canada: From Alberta eastward across the prairies into extreme western Ontario; northward in the west at least to Fort Smith, Mackenzie District. Map 64.

Canadian locality records: ALBERTA. Birch River, Edmonton (Harper, 1931a, p. 69). Waterton National Park (PS: S. Bleakney); (NMC). MANITOBA. Berens Island in Lake Winnipeg (O'Donoghue, 1921, p. 128). Gypsumville, High Bluff, Island Lake, Jackhead Reserve, Lake St. Martin, Teulon (ROM). NORTHWEST TERRITORIES. *Mackenzie Dist.*, Fort Smith (Harper, 1931a, p. 69). ONTARIO. *Patricia Dist.*, Favourable Lake (ROM). SASKATCHEWAN. Amisk Lake (PC: W. H. Beck); (USM).



Map 63. *Thamnophis sirtalis sirtalis* ●
Thamnophis sirtalis pallidula ■

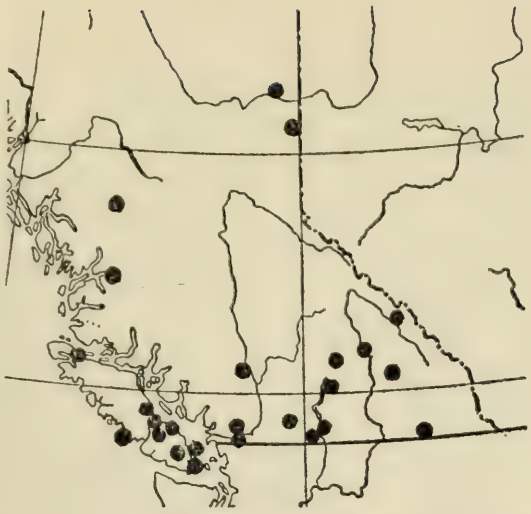
Map 64. *Thamnophis sirtalis parietalis*

Thamnophis sirtalis ssp. (In British Columbia). Map 65.
COMMON GARTER SNAKE

This complex includes within the borders of British Columbia forms that have been assigned by various authors, at various times, to one or more of the following races of *Thamnophis sirtalis*: *concinnus*, *fitchi*, *infernalis*, *parietalis*, *pickeringi*, *tetrataenia* and *trilineata*. In the sixth edition of the check list (Schmidt 1953, pp. 175–6) three races, *concinuus*, *trilineata*, and *fitchi*, are reported as occurring in British Columbia, the two former as reaching Vancouver Island. Boulenger's records of *infernalis* were certainly in error, but with regard to the others, the application of race names can mean nothing, until geographic ranges can be defined with some degree of consistency for some or all of them (in British Columbia), and it can be shown that any two or more alleged races do not intergrade throughout their ranges within that province.

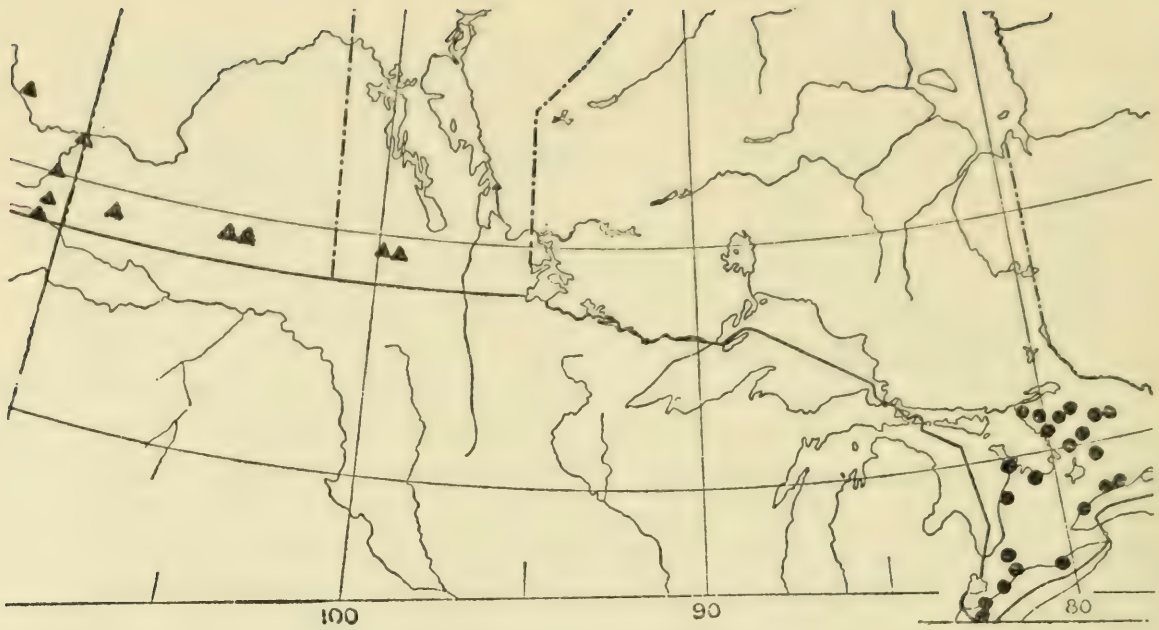
In the past history of this group a number of race names have been erected upon individual variations and later discarded. We should learn from experience in dealing with such a highly variable species as *sirtalis*, that the naming of supposed races should not be lightly undertaken. The writers are not prepared to discuss the validity of any particular named race, nor is this the place to do so, but until zoologists who are studying (and naming) the races can find less fluid ground of common agreement, the writers prefer not to commit themselves to race names for any of this variable species within British Columbia.

In citing the literature references for the localities named below, the race names applied by the various authors are cited in parentheses with them.
Canadian locality records: BRITISH COLUMBIA. MAINLAND. Coast, adjacent to Vancouver Island (*T. s. trilineata*) (Carl, 1951, p. 33). *Cariboo Dist.*, vicinity of Mt. Robson (*T. s. concinnus*) (Cowan, 1937, p. K23). *Coast Dist., Range 3*, Bella Coola (*T. s. concinnus*) (Patch, 1922, p. 78, Van Denburgh, 1922, p. 798). *Coast Dist., Range 4*, Ootsa Lake (*T. s. concinnus*) (Cowan, 1937, p. K23). *Kamloops Dist.*, Sicamous (*Eutania s. trilineata*) (Cope, 1894, p. 181); (*E. s. parietalis*) (Cope, 1894, p. 181); (*T. s. parietalis*) (Ruthven, 1908, p. 167). *Kootenay Dist.*, Creston (*T. s. concinnus*) (Cowan, 1937, p. K23). Donald (*T. s. parietalis*) (Ruthven, 1908, p. 167); (*T. s. concinnus*) (Van Denburgh, 1922, p. 798). Golden (*Tropidonotus ordinatus infernalis*) (Boulenger, 1896, p. 208). Kaslo (*T. s. parietalis*) (Ruthven, 1908, p. 176); (*T. s. concinnus*) (Van Denburgh, 1922, p. 798). Nelson (*T. s. parietalis*) (Ruthven, 1908, p. 167). Revelstoke (*T. o. infernalis*) (Boulenger, 1896, p. 208). *Lillooet Dist.*, Seton Lake (*T. s. concinnus*) (Cowan, 1937, p. K23). *Lillooet-New Westminster Dists.*, Lillooet River Valley (*T. s. concinnus*) (Van Denburgh and Slevin, 1918, p. 192, Van Denburgh, 1922, p. 798). *New Westminster Dist.*, Chilliwack (*T. s. concinnus*) (Van Denburgh, 1922, p. 798). Hatzic (*E. s. trilineata*, *E. s. concinnus*) (Cope, 1894, p. 181); (*T. parietalis*) (Fannin, 1898, p. 58). Lund (*T. s. concinnus*) (Van Denburgh, 1922, p. 798). Sumas Prairie (*T. o. infernalis*) (Boulenger, 1896, p. 208). Vancouver (*T. s. concinnus*) (Cowan, 1937, p. K23). *Osoyoos Dist.*, Nahun (*T. s. concinnus*) (Cowan,



Map 65. *Thamnophis sirtalis ssp.* (in British Columbia)

1937, p. K23). Okanagan Landing (*T. s. concinnus*) (Cowan, 1937, p. K23). Vernon (*T. parietalis*) (Fannin, 1898, p. 58); (*T. s. concinnus*) (Cowan, 1937, p. K23). *Peace River District* (*T. s. parietalis*) (Carl, 1944, p. 33, 1951, p. 33). Charlie Lake, Tupper Creek (*T. s. parietalis*) (Cowan, 1939, p. 93). East of Rocky Mountains (*T. s. parietalis*) (Carl, 1951, p. 33). Province, Greater part of (*T. s. tetrataenia*) (Carl, 1944, p. 33, 1951, p. 33). *Similkameen Dist.*, Marron Lake (*T. s. concinnus*) (Logier, 1932, p. 327) (ROM). Okanagan Falls (*T. s. concinnus*) (Cowan, 1937, p. K23). Ricter Pass (*T. s. concinnus*) (Logier, 1932, p. 327) (ROM). *Yale Dist.*, Princeton, (*T. s. parietalis*) (Logier, 1932, p. 327) (ROM). Mainland, no precise locality, Coast region of British Columbia (*T. s. concinnus*) Van Denburgh and Slevin, 1918, p. 192, Van Denburgh, 1922, p. 798). Southern British Columbia (*T. s. concinnus*) (Stejneger and Barbour, 1943, p. 172, Schmidt, 1953, p. 176). Lower mainland (*T. s. pickeringi*) (Carl, 1944, p. 33). VANCOUVER ISLAND. *Alberni Dist.*, Alberni Valley (*T. s. concinnus*) (Van Denburgh and Slevin, 1918, p. 192, Van Denburgh, 1922, p. 798). Stamp River (undetermined) (ROM). *Clayoquot Dist.*, Tofino (undetermined) (ROM). *Comox Dist.*, Comox Lake (*T. s. concinnus*) (Ruthven, 1908, p. 174, Van Denburgh, 1922, p. 798). *Cowichan Lake Dist.*, Mayne Island (*T. s. concinnus* (Van Denburgh and Slevin, 1918, p. 192, Van Denburgh, 1922, p. 798). *Esquimalt Dist.*, Langford Lake (*T. s. concinnus*) (Cowan, 1937, p. K23). *Goldstream Dist.*, Goldstream (*T. s. concinnus*) (Cowan, 1937, p. K23). *Nanaimo Dist.*, Gabriola Island (*T. s. concinnus*) (Van Denburgh, 1922, p. 798, Cowan, 1937, p. K23). Nanaimo (*T. s. concinnus*) (Cowan, 1937, p. K23). *Nelson Dist.*, Union Bay (*T. s. concinnus*) (Van Denburgh and Slevin, 1918, p. 192, Van Denburgh, 1922, p. 798). *North Saanich Dist.*, Sidney (*T. s. concinnus*) (Cowan, 1937, p. K23). *Rupert Dist.*, Hardy Bay (*T. s. concinnus*) (Cowan, 1937, p. K23). *Sahtlam Dist.*, Sahtlam (*T. s. concinnus*) (Cowan, 1937, p. K23). *Sooke Dist.*, Sooke Lake (*T. s. concinnus*) (Cowan, 1937, p. K23). *Victoria Dist.*, Victoria (*T. s. concinnus*) (Cowan, 1937, p. K23). Vancouver Island, no precise locality (*T. s. concinnus*) (Van Denburgh and Slevin, 1918, p. 192, Van Denburgh, 1922, p. 798, Stejneger and Barbour, 1943, p. 172, Schmidt, 1953, p. 175); (*T. s. pickeringi*) (Carl, 1944, p. 33); (*T. s. trilineata*) (Carl, 1951, p. 33, Schmidt, 1953, p. 176).



Map 66. *Heterodon nasicus nasicus* ▲
Heterodon platyrhinos platyrhinos ●

Heterodon platyrhinos platyrhinos Latreille
EASTERN HOG-NOSED SNAKE

Range in Canada: Southern Ontario northward to northern Parry Sound District, and eastward to Durham, or possibly to Hastings, county. Map 66.

Canadian locality records: ONTARIO. *Bruce Co.*, Bruce Peninsula, Lucknow (ROM). *Durham Co.*, Darlington Twp. (Allin, 1940, p. 112). Port Hope (Garnier, 1881, p. 37). *Elgin Co.*, Dutton (ROM). *Essex Co.*, Pelee Island (Jones, 1912, p. 103). Point Pelee (ROM). *Grey Co.*, Thornbury (PC: L. H. Beamer). *Haliburton Co.*, Irondale (PC: S. Bleakney). Koshlong Lake (ROM). St. Nora Lake (PC: U. Paim). *Kent Co.*, Rondeau Park (ROM). *Middlesex Co.*, Strathroy (ROM). *Muskoka Dist.*, Torrence (ROM). *Nipissing Dist.*, Algonquin Park: Canisbay Creek at 1400 feet, East Gate at 1200 feet (PC: A. F. Helmsley). Madawaska (PC: C. L. Patch); (NMC). *Norfolk Co.*, Long Point (ROM). *Parry Sound Dist.*, Magnetawan (Kelly, 1934, p. 39). Rye (ROM). Still River (Saunders, 1929, p. 208). Wah-wash-kesh Lake (ROM). *York Co.*, Toronto (ROM).

Heterodon nasicus nasicus Baird and Girard
PLAINS HOG-NOSED SNAKE

Range in Canada: Southern Alberta to southern Manitoba. Map 66.

Canadian locality records: ALBERTA. Comroy, Craigmyle, Empress, Manyberries, Medicine Hat (Moore, 1953b, p. 173); (UA). MANITOBA. Aweme, Brandon, Glenboro (PC: R. W. Sutton). Onah (Criddle, 1919, p.

Map 67. *Diadophis punctatus edwardsi*

135). Treesbank, Wawanesa (PC: R. W. Sutton). SASKATCHEWAN. Bergfield (PC: W. H. Beck); (USM). Bengough (PC: R. W. Nero). Hardy (PC: W. H. Beck); (USM). Harptree (PC: R. W. Nero). Shaunavon (PC: S. Bleakney).

Diadophis punctatus edwardsi Merrem

NORTHERN RING-NECKED SNAKE

Range in Canada: Southern Ontario eastward to Nova Scotia; northward from the Lower Lakes to about Latitude 48°. It is not known from Prince Edward Island, and evidently does not reach Cape Breton Island. Map 67.

Canadian locality records: NEW BRUNSWICK. *Northern* and *southcentral New Brunswick* (Bleakney, 1958, pp. 66, 113). NOVA SCOTIA. *Annapolis Co.*, Annapolis (Jones, 1865, p. 115). Annapolis Valley (Bleakney, 1958, pp. 66, 113). *Cumberland Co.*, Oxford (Bleakney, 1958, pp. 66, 113). *Halifax Co.*, Bedford Basin (Piers, 1895, p. 181). *Southcentral Nova Scotia* (Bleakney, 1958, pp. 66, 113). ONTARIO. *Algoma Dist.*, Hawk Junction (ROM). *Bruce Co.*, Southampton (ROM). *Durham Co.*, Darlington Twp. (Allin, 1940, p. 112). *Grey Co.*, Meaford (ROM). *Huron Co.*, Londesborough (ROM). *Kent Co.*, Rondeau Park (ROM). *Leeds Co.*, Pitts Ferry (Toner, 1935, p. 42). *Lincoln Co.*, St. Catharines (Yarrow, 1882, p. 95). *Nipissing Dist.*, Brent, North Bay (ROM). *Wentworth Co.*, Hamilton (Brown, 1928, p. 126). *York Co.*, Toronto (ROM). QUEBEC. *Bonaventure Co.*, Matapedia (PC: A. Loveridge); (MCZ). *Gatineau Co.*, Lake Baskatong (ROM). *Montmorency Co.*, St. Joachim (Provancher, 1874, p. 353).

Coluber constrictor constrictor Linnaeus
NORTHERN BLACK RACER

Range in Canada: Nova Scotia, Prince Edward Island, and possibly New Brunswick. Map 68.

Canadian locality records: NOVA SCOTIA. *Halifax Co.*, Halifax (Jones, 1865, p. 118; Gilpin, 1878, p. 84; Piers, 1890, p. 471). PRINCE EDWARD ISLAND. *Queens Co.*, Charlottetown (Mellish, 1878, p. 165).

Coluber constrictor flaviventris Say
EASTERN YELLOW-BELLIED RACER

Range in Canada: Extreme southwestern Ontario. Map 68.

Canadian locality records: ONTARIO. Essex Co., Pelee Island (Jones, 1912, p. 103). Point Pelee (Patch, 1919, p. 60). *Huron Co.*, Grand Bend (ROM).

Coluber constrictor mormon Baird and Girard
WESTERN YELLOW-BELLIED RACER

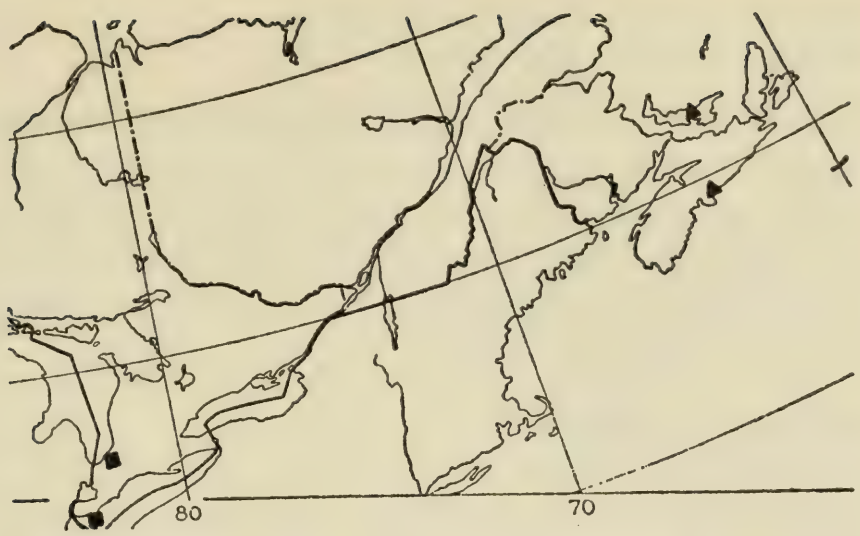
Range in Canada: Central part of southern British Columbia. Map 69.

Canadian locality records: BRITISH COLUMBIA. *Kamloops Dist.*, Kamloops (PC: G. C. Carl); (PMBC). *Lillooet Dist.*, Seton Lake (PC: G. C. Carl); (PMBC). *Osoyoos Dist.*, Summerland (ROM). Vernon (PC: G. C. Carl); (PMBC). *Similkameen Dist.*, Keremeos, Marron Lake, Vaseux Lake (ROM).

Opheodrys vernalis vernalis Harlan
EASTERN SMOOTH GREEN SNAKE

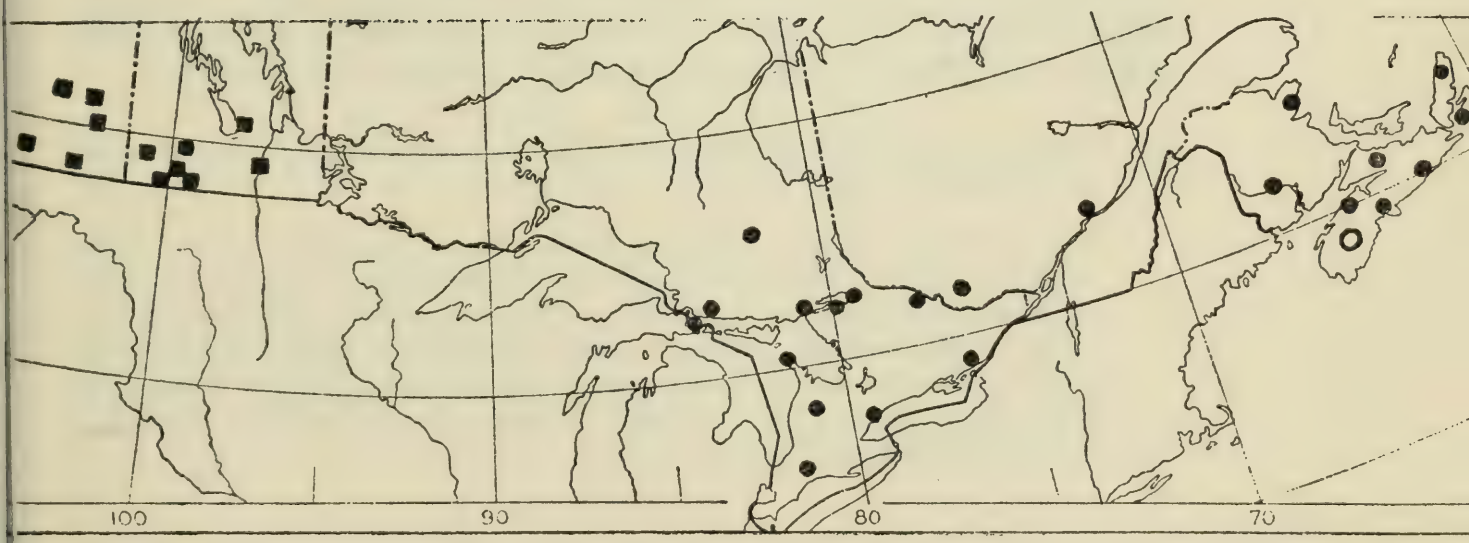
Range in Canada: Southern Canada from Nova Scotia to eastern Manitoba. Map 70.

Canadian locality records: MANITOBA. Shoal Lake, Winnipeg (Seton, 1918, p. 81). NEW BRUNSWICK. *Northern New Brunswick* (Bleakney, 1958, pp. 66, 115). *Northumberland Co.*, Tabusintac (Grobman, 1941, p. 12); (CM). *Southcentral New Brunswick* (Bleakney, 1958, pp. 66, 115). *York Co.*, Fredericton (ROM). NOVA SCOTIA. Annapolis Valley (Bleakney, 1958, pp. 66, 115). *Cumberland Co.*, Oxford (Bleakney, 1958, pp. 66, 115). *Halifax Co.*, Moser River, Wellington (ROM). *Inverness Co.* (Bleakney, 1958, p. 115). *Kings Co.*, Berwick (ROM). *Richmond Co.* (Bleakney, 1958, p. 115). *Southcentral Nova Scotia* (Bleakney, 1958, pp. 66, 115). ONTARIO. *Algoma Dist.*, Iron Bridge (ROM). St. Joseph Island (Logier, 1942, p. 155). *Bruce Co.*, Dorcas Bay (ROM). *Frontenac Co.*, Washburn (Toner, 1935, p. 42). *Grey Co.*, Flesherton (ROM). *Middlesex Co.*, London (PC: T. D. Patterson). *Nipissing Dist.*, Algonquin Park: Lake Lavielle (PC: A. F. Helmsley, sight record by G. Francis). North Bay (ROM). *Parry Sound Dist.*, Franks Bay (ROM). *Renfrew Co.*, Petawawa River (ROM). *Sudbury Dist.*, Bigwood, Gogama (ROM). *York Co.*, Toronto (ROM). QUEBEC. *Gatineau Co.*, Gracefield (ROM). *Quebec Co.*, Quebec (ROM).



Map 68. *Coluber constrictor constrictor* ▲
Coluber constrictor flaviventris ■

Map 69. *Coluber constrictor mormon*



Map 70. *Opheodrys vernalis vernalis* ●
Opheodrys vernalis blanchardi ■

Opheodrys vernalis blanchardi Grobman
WESTERN SMOOTH GREEN SNAKE

Range in Canada: Southwestern Manitoba* and southeastern Saskatchewan.

Canadian locality records: MANITOBA. Boissevain, Carberry (Seton, 1918, p. 81). Cartwright, Oak Lake (PC: R. W. Sutton). Treesbank (Criddle, 1937, p. 142); (ROM). SASKATCHEWAN. Ceylon (PC: R. W. Nero). Crooked Lake (PC: S. Bleakney); (NMC). Katepwa Beach, North Portal, Roche Percee (PC: R. W. Nero).

Elaphe vulpina gloydi Conant
EASTERN FOX SNAKE

Range in Canada: Southern Ontario in the counties and districts bordering lakes Erie, St. Clair, and Huron, and Georgian Bay; close to quiet water. Map 71.

Canadian locality records: *Bruce Co.*, Lucknow (ROM). *Essex Co.*, Auld, Kingsville, Pelee Island, Point Pelee (ROM). *Kent Co.*, Mitchells Bay (ROM). Rondeau Park (SC). *Muskoka Dist.*, Go Home Bay (A. L. Tester in MS). *Norfolk Co.*, Long Point, Turkey Point, Port Rowan, St. Williams (ROM). *Parry Sound Dist.*, Franklin Island, Point au Baril (ROM). *Simcoe Co.*, Waubaushene (SS). *York Co.*, Toronto (ROM).**

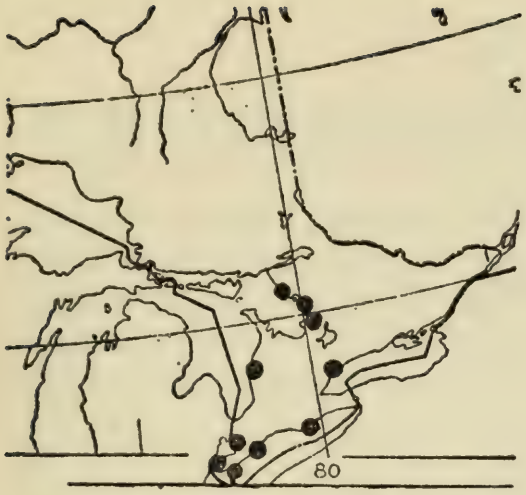
Elaphe obsoleta obsoleta Say
BLACK RAT SNAKE

Range in Canada: Southern Ontario in the counties bordering Lake Erie, also in Leeds and Frontenac counties. Map 72.

Canadian locality records: ONTARIO. *Essex Co.*, Point Pelee (Logier, 1925, p. 93; Lindsay, 1931, p. 84). *Frontenac Co.*, Battersea, Godfrey (Lindsay, 1931, p. 84). *Lanark Co.*, Christie Lake (PC: J. D. Walters); (SS). *Leeds Co.*, Gananoque, Gananoque Lake, Glen Buell, Lansdowne, Marble Rock, Sand Bay (ROM). Seeleys Bay (Toner, 1934, p. 47). Thousand Islands (Toner, 1935, p. 42). *Norfolk Co.*, Port Rowan, St. Williams, Walsingham Twp. (ROM). *Welland Co.*, Fonthill (Lindsay, 1931, p. 84).

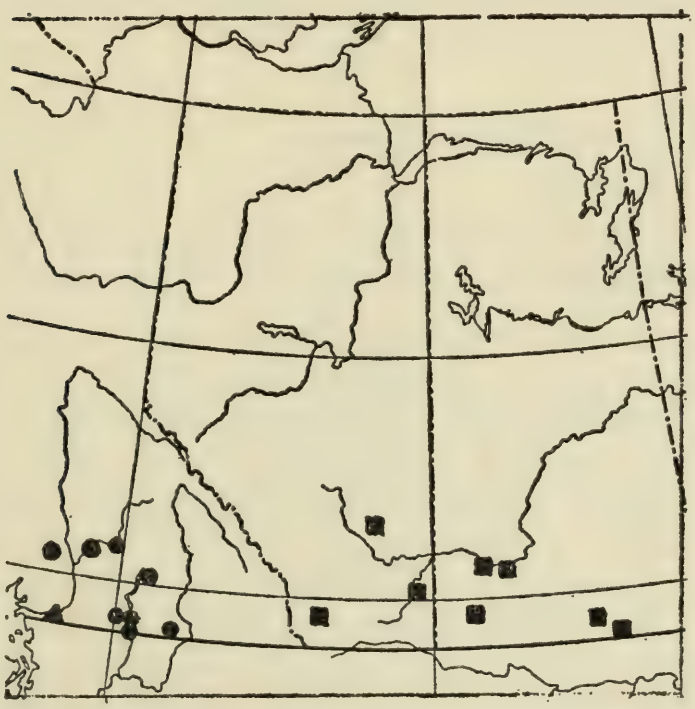
*These specimens would probably belong to an intergrading population between *vernalis* and *blanchardi*.

**This 50½-inch snake was killed in the Don Valley, east of Valleyanna Drive, on May 4, 1959. The locality is about 70 miles northeast of its presently known range on the north shore of Lake Erie, and almost as far south of Georgian Bay. While we cite the record, we believe there is a high degree of probability that its presence there was due to human agency. There is in the National Museum of Canada a specimen which was killed in Prescott County in 1926—about 250 miles east of Toronto.



Map 71. *Elaphe vulpina gloydi*

Map 72. *Elaphe obsoleta obsoleta*



Map 73. *Pituophis catenifer catenifer* ▲
Pituophis catenifer deserticola ●
Pituophis catenifer sayi ■

Pituophis catenifer catenifer Blainville

PACIFIC GOPHER SNAKE

Range in Canada: Southern British Columbia west of the Cascade Mountains. Map 73.

Canadian locality records: *New Westminster Dist.*, Sumas (Lord, 1866, p. 307).

Pituophis catenifer deserticola Stejneger
GREAT BASIN GOPHER SNAKE

Range in Canada: Dry belt of southern British Columbia north to Kamloops, west to Lillooet, and east to Cascade in eastern Similkameen District. Map 73.

Canadian locality records: *Kamloops Dist.*, Kamloops, between Ashcroft and Spences Bridge (PC: G. C. Carl); (PMBC). *Lillooet Dist.*, Lillooet (Carl, 1951, p. 31). *Osoyoos Dist.*, Okanagan Landing, Vernon (ROM). *Similkameen Dist.*, Cascade (Carl, 1951, p. 31). Green Lake, Kaledon, Keremeos (ROM). Okanagan Falls, Osoyoos (PC: G. C. Carl); (PMBC). Vaseux Lake (Anderson, 1914, p. G19).

Pituophis catenifer sayi Schlegel
BULLSNAKE

Range in Canada: Southern Alberta and probably southwestern Saskatchewan. Map 73.

Canadian locality records: ALBERTA. Hanna (SS); (UA). Lethbridge (ROM). Medicine Hat (Boulenger, 1894, p. 69).

Lampropeltis doliata triangulum Lacepede
EASTERN MILK SNAKE

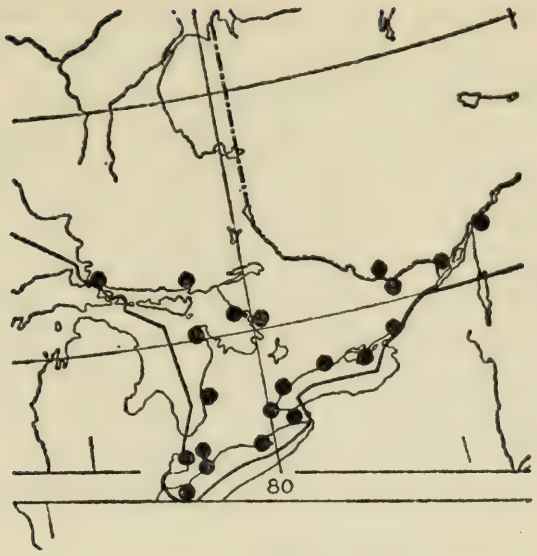
Range in Canada: Southern Ontario and western Quebec, northward into Algoma and Sudbury districts, and eastward to Yamaska. Map 74.

Canadian locality records: ONTARIO. *Algoma Dist.*, Echo Lake and Sault Ste. Marie (ROM). *Bruce Co.*, Lucknow, Tobermory (ROM). *Carleton Co.*, Ottawa (Patch, 1937, p. 4). *Essex Co.*, Pelee Island (Jones, 1912, p. 103). Point Pelee (Logier, 1925, p. 93. SC). *Kent Co.*, Rondeau Park (ROM). *Leeds Co.*, Black Rapids (ROM). *Middlesex Co.*, Newbury (ROM). *Nipissing Dist.*, Whitney (PC: G. E. Tayler); (APM). *Norfolk Co.*, Long Point (ROM). *Northumberland Co.*, Brighton (ROM). *Parry Sound Dist.*, Franklin Island, Gordon Bay (ROM). *Prince Edward Co.*, Picton (ROM). *Sudbury Dist.*, Fairbank Lake Park (PC: W. A. Morris). Lake Penache, Spanish River (ROM). *Welland Co.*, Wainfleet (ROM). *Wentworth Co.*, Hamilton (Brown, 1928, p. 126). *York Co.*, Toronto (ROM). QUEBEC. *Gatineau Co.*, Alcove (ROM). *Hochelaga Co.*, Montreal (Provencher, 1874, p. 330). *Yamaska Co.*, Yamaska (Provancher, 1874, p. 330).

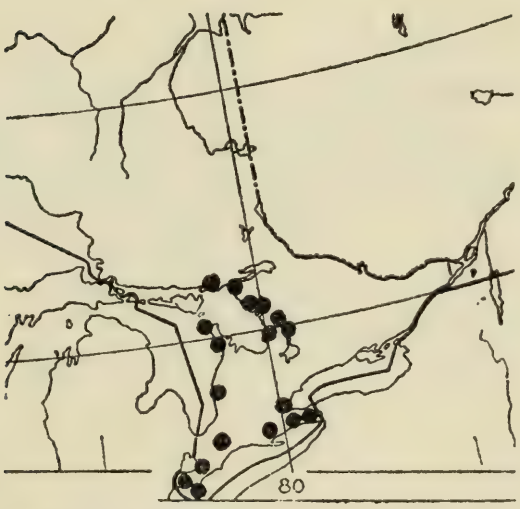
Contia tenuis Baird and Girard
SHARP-TAILED SNAKE

Range in Canada: Known only from Vancouver Island and North Pender Island, British Columbia.

Canadian locality records: BRITISH COLUMBIA. *Cowichan Dist.*, North Pender Island (Carl, 1950, p. 116); (PMBC). VANCOUVER ISLAND (Boulenger, 1894, p. 268); (BMNH).



Map 74. *Lampropeltis doliata triangulum*



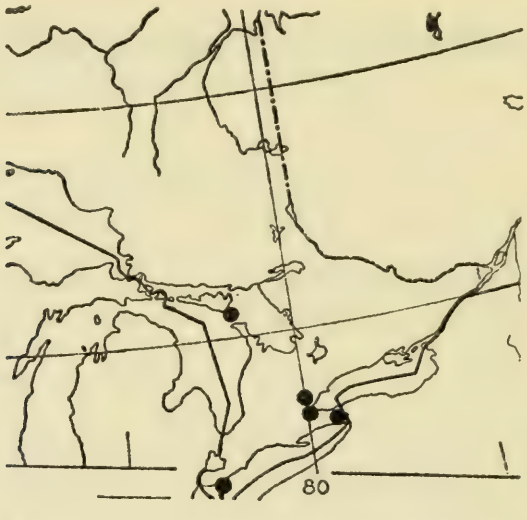
Map 75. *Sistrurus catenatus catenatus*

FAMILY CROTALIDAE

Sistrurus catenatus catenatus Rafinesque
EASTERN MASSASAUGA

Range in Canada: Southern Ontario from Lake Erie northward to French River, southeastern Sudbury District, and Manitoulin District; eastward at least to the Muskoka Lakes. Map 75.

Canadian locality records: ONTARIO. *Bruce Co.*, Dorcas Bay, Red Bay (ROM). Lucknow (Gloyd, 1940, p. 52); (USNM). Tobermory (UMMZ). *Essex Co.*, Kingsville (Miner, 1930, p. 50). Point Pelee (Stejneger, 1895, p. 414). *Haldimand Co.*, Lowbanks (SS). *Kent Co.*, Tillbury (Garnier, 1881, p. 38). *Manitoulin Dist.*, Killarney (Gloyd, 1940, p. 52). *Middlesex Co.*, Newbury (Fox, 1948, p. 160). *Muskoka Dist.*, Arthur's Island in Georgian Bay (ROM). Bala (Toronto Daily Star, Sept. 13, 1938. PC: Dr. J. F. McCreary). Go Home Bay, Port Severn, Sparrow Lake (ROM). Gravenhurst (NMC). *Norfolk Co.*, Simcoe, 3 miles west of (PC: M. Landon). *Parry Sound Dist.*, French River (ROM). Nobel (Nobel News, Aug. 21, 1943, photograph). Point au Baril, 5 miles south of (ROM). Snug Harbour (Journal, E. Beaupres). Twelve Mile Lake, Wah Wash Kesh Lake (ROM). *Welland Co.*, Port Colborne, Wainfleet (ROM). *Wentworth Co.*, Hamilton (Hamilton Spectator, Aug. 16, 1949, photograph).



Map 76. *Crotalus horridus horridus*

Crotalus horridus horridus Linnaeus
TIMBER RATTLESNAKE

Range in Canada: Apparently now restricted to the Niagara Gorge region of Welland County, Ontario. Formerly of more extended range, probably following the limestone outcropping northward to Manitoulin District. Map 76.

Canadian locality records: ONTARIO. *Essex Co.*, Point Pelee (Patch, 1919, p. 61); (NMC). *Halton Co.*, Lake Medad (Galinee, 1669, Charlton, 1884, pp. 51–52). *Manitoulin Dist.*, Fitzwilliam Island (ROM). *Welland Co.*, Niagara Falls, Niagara Glen (ROM). *Wentworth Co.*, Hamilton (Garnier, 1881, p. 38).

Crotalus viridis viridis Rafinesque
PRAIRIE RATTLESNAKE

Range in Canada: Southern Alberta and Saskatchewan south of Latitude 52°, eastward to longitude 108°, and west to 113°. Map 77.

Canadian locality records: ALBERTA. Alderson, Diamond City (PC: L. M. Klauber). High River, 50 miles east of (Fowler, 1934, p. 140). Iron Springs (PC: A. Loveridge); (MCZ). Lethbridge, Manyberries, Medicine Hat (ROM). Forty miles west of Medicine Hat, Redcliff, Suffield (PC: L. M. Klauber). SASKATCHEWAN. Bellanger Creek, Cypress Hills, Eastend, Estuary, Fork of Red Deer and Saskatchewan Rivers, Governlock, South Saskatchewan River north of Prelate, Rosefield, south of Metador, Extreme southwestern Saskatchewan in Township 1, Range 30 (PC: L. M. Klauber).

Map 77. *Crotalus viridis viridis* ▲
Crotalus viridis oreganus ■

Crotalus viridis oreganus Holbrook
NORTHERN PACIFIC RATTLESNAKE

Range in Canada: Interior dry region of southern British Columbia, northward to Lillooet, Ashcroft, and Lac du Bois (almost to 51° latitude), eastward to Cascade, and westward to the Fraser River. Map 77.

Canadian locality records: BRITISH COLUMBIA. *Kamloops Dist.*, Ashcroft (PC: G. C. Carl); (PMBC). Glenemma (PC: L. M. Klauber). Lac du Bois (Carl, 1951, p. 42). Lytton (Cowan, 1937, p. K22). *Lillooet Dist.*, Lillooet (Carl, 1951, p. 42). *Osoyoos Dist.*, Ewings Landing, Kelowna (PC: L. M. Klauber). *Similkameen Dist.*, Cascade (Carl, 1951, p. 43). Grand Forks, Naramata (PC: L. M. Klauber). Osoyoos (PC: G. C. Carl); (PMBC). Rock Creek (PC: L. M. Klauber). *Yale Dist.*, North Bend (PC: L. M. Klauber).

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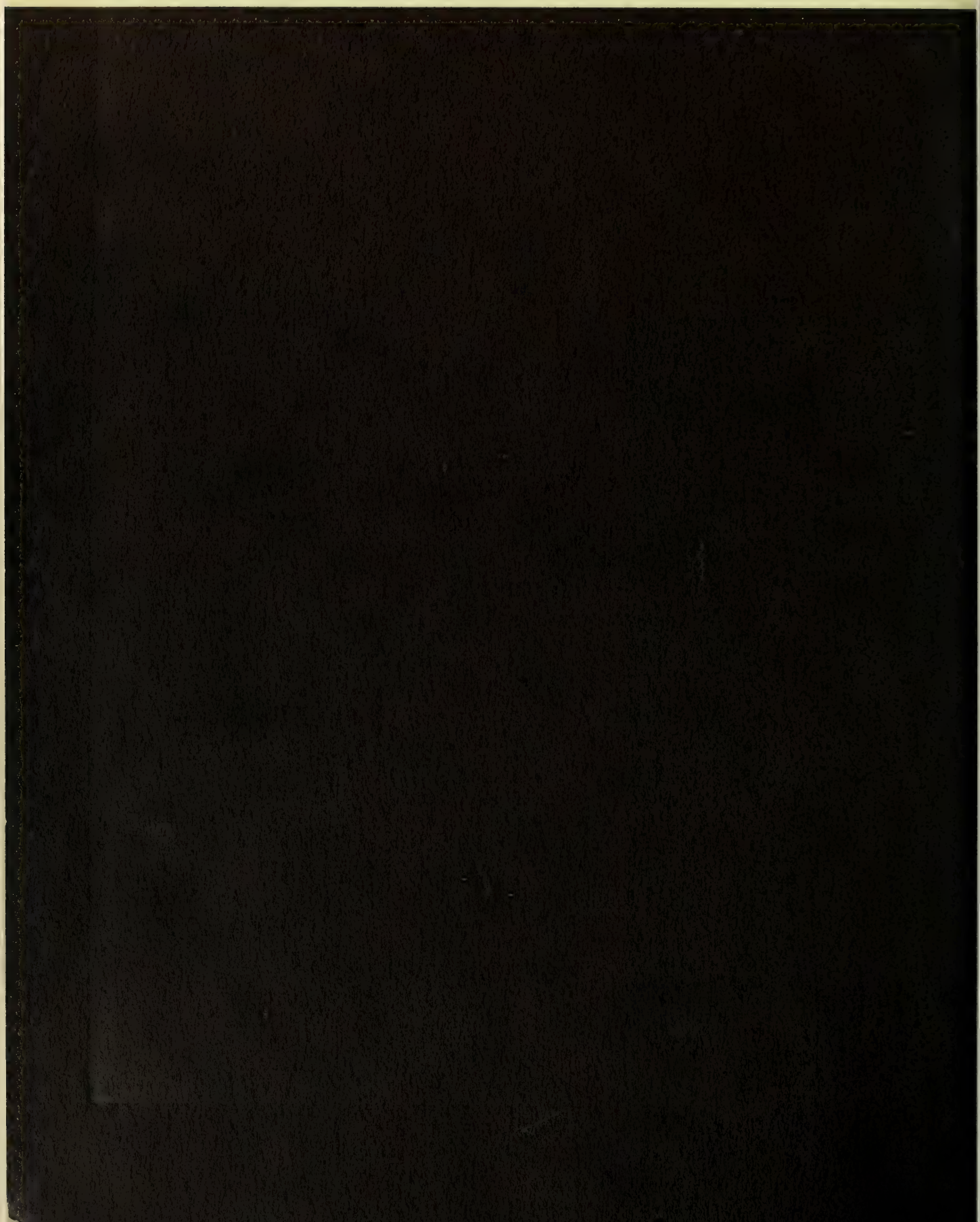

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